

# THE CHEMIST & DRUGGIST

WINTER ISSUE  
JANUARY 25, 1913.

A WEEKLY JOURNAL OF PHARMACY AND THE DRUG AND CHEMICAL TRADES.

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## FOSTERING BUSINESS OVERSEAS.

It is generally agreed that business with buyers of druggists' goods in the Colonies and elsewhere abroad is profitable and well worth looking after. The man who makes it as easy for the manufacturer to ship a large consignment of his goods to Delagoa Bay, as to execute an order for Dundee, is the Merchant Shipper. To secure the attention and co-operation of the best of these advertise boldly in

## THE EXPORT MERCHANT SHIPPERS' ISSUE

of

## THE CHEMIST AND DRUGGIST,

which is to be published on March 8. You will obtain all the necessary particulars with regard to advertising space by writing now to the Publisher, THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

## SUMMARY.

Being a first glance at the articles and events reported in this Issue.

A novel account of the Minor examination is given on p. 170.

How a skin-cream became a good speciality is told on p. 164.

The reportograph, an instrument for automatically recording the spoken word, is explained on p. 161.

Practical information in regard to the keeping properties of tinctures is contained in an article on pp. 154-155.

Two new atmospheric gases have been discovered by Sir J. J. Thomson, and are described in the report on p. 102.

Mr. W. Mair communicates an article on the U.S. Bureaus of Chemistry and Plant Industry at Washington. It begins on p. 165.

In an illustrated article the cultivation and commerce of coca, areca, nux, vomica, and ayapana are dealt with (pp. 139-141).

One hundred years ago Michael Faraday joined the staff of the Royal Institution. We give a sketch of his career, his portrait, and an autograph letter on p. 159.

Some notes are given on old mortars, with illustrations. These are mostly metal mortars, but one from the Temple of Diana at Aix-les-Bains, and of unknown age, is of stone (pp. 162-163).

The computation of the charges for Insurance prescriptions is the subject of an explanatory article beginning on p. 128, which is accompanied by a full-page table, which should make pricing much easier to dispensers (p. 131).

An article beginning on p. 142 gives some instructive glimpses of pharmacy in other lands. First a tour in Brittany is described, then are given particulars of pharmacy in Florence, Rome, Norway, and the United States.

The new "Sanitas" works are described and illustrated, reference being made in the article to the research on terpenes, to the industry which has resulted from it, and to the work of Mr. C. T. Kingett (pp. 149-153).

Price-changes in the chemical and drug markets include an advance in citric acid, citrates, canary-seed, potashes, shellac, and serpentine-root; ammonia sulphate, benzols, guinea-grains, and Japanese peppermint oil (c.i.f.) are firmer. Copper sulphate, lead-compounds, milk-sugar, elecampane, and vanilla are cheaper. As this issue closed for press on Wednesday, a full report of the drug auctions is given in our Coloured Supplement (p. 172).

The news section in the pages which follow contains all received up to Wednesday evening, and Thursday's news is given in the Coloured Supplement. The legal reports comprise an important case in which a chemist was sued for damages on account of morphine suppositories being given for glycerin suppositories (p. 108). Insurance medical benefit news includes the capitulation of the B.M.A. and reports on chemists' experience of dispensing (p. 114). The provisions are working smoothly on the whole.

## CORNER FOR STUDENTS.

Conducted by Leonard Dobbin, Ph.D.

All communications for this section should be addressed thus:  
"Corner for Students, 'The Chemist and Druggist,' 42 Cannon Street, London, E.C."

### QUALITATIVE ANALYSIS.

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. The mixture will comprise acids and inorganic bases occurring in the British Pharmacopœia, and is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by a stamped and addressed envelope, not a stamp merely) will be received up to Tuesday, January 28, and the samples will be posted on the following day.

Students' reports will be received up to Saturday, February 8. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts composing the mixture.

The analysis announced above forms the fourth exercise in the analytical tournament for the current winter session. The usual monthly first and second prizes in this series of analyses will be awarded only to apprentices or assistants who are preparing for the Qualifying Examination of the Pharmaceutical Society of Great Britain or of Ireland, which fact must be attested on their reports.

The report upon this month's exercise will be published next week.

## Two New Gases.

HE first Friday evening discourse of the present session was given at the Royal Institution, Albemarle Street, Piccadilly, London, W., on January 17, by Professor Sir J. J. Thomson. The Duke of Northumberland was in the chair, and there was a good attendance. The subject was "Further Applications of the Method of Positive Rays," the lecturer giving interesting particulars of two new gases which have been detected by this method. Sir James recalled that two years ago he gave a demonstration of his method of analysis by means of positive rays (*C. & D.*, April 15, 1911, index folio 551), and he now, after a brief résumé of the principles of the process, gave some new facts that have accumulated since then. It will be remembered that the process involves the recording on a photographic plate of the parabola of positive particles, and that each element has a distinctive parabola. Applying the method to two specimens of residues from liquid air with which he had been supplied by Sir James Dewar, he had no difficulty in finding and identifying in the specimen of the heavier residues, xenon, krypton, argon, and neon. There were no lines unaccounted for, which he said shows that there do not occur in the atmosphere any unknown gases in any quantity approaching that of xenon or krypton. In regard to the specimen containing the lighter constituent, the method detected neon, nitrogen (due to contamination with air), and argon, and in addition there appeared a new line not explained by any known constituent of the atmosphere. From its position the unknown gas must have an atomic weight 22. It is comparatively faint, showing that the amount is only a fraction of that of neon in the atmosphere. At first it was thought to be due to carbon dioxide, but after special precautions were taken to remove carbon dioxide by means of a spiral of liquid air the 22 line still remained. "Now," said the lecturer, "in the edifice built by modern chemists there is no room for this gas." The periodic law does not allow for a gas so near neon as one with the atomic weight 22. What the gas is cannot be stated at present. It was suggested that, despite the fact that these gases do not combine, it may be a compound of neon with

two atoms of hydrogen, a gas which would satisfy the requirements of the case. There may also be several gases with properties similar to neon, just as there is a metallic group consisting of iron, nickel, and cobalt. On two occasions, the lecturer went on to remark, he has found in the positive-ray photograph of a tube of helium a line strongly marked with the atomic weight 6. This may be a compound of helium and oxygen. It is not due to carbon, and in searching for it he had to record scores of failures. Sir J. J. Thomson then called attention to the distances of the parabolic curves from the vertical line, which, although they vary greatly, are characteristic in the case of each element. It is probable, however, that modifications on the atom may give rise to different displacements; in fact, evidence has been obtained of atoms with two kinds of ionisation. In his search for a more plentiful source of the last-named gas, provisionally called " $X_3$ ," an examination was made of the gases given off by metals when bombarded by cathode rays, and in this case he was able to obtain the line with almost absolute regularity. He went on to state that the amount of gas absorbed by metals is remarkable. Bellon, by placing iron in a high vacuum reached a point when he could get no more gas out of it; but, said the lecturer, he has found a piece of iron to be an "inexhaustible source of gas" when it is bombarded by cathode rays. It is not a case of diffusion, because if the metal is heated a few degrees higher a further supply of gas is obtained. It reminded him of the way salts give off their water of crystallisation when heated to certain temperatures. The gas " $X_3$ " was obtained from iron in this way with unflinching regularity. Copper and nickel also give it. There are, he has found, very few things that can be bombarded without giving off helium. " $X_3$ " was obtained in this manner in undiminished quantity, even after continuing the bombardment for twenty hours. The method was tried on lead, a specimen 250 years old being obtained from the roof of Trinity College Chapel, Cambridge. This gave the line 3, and helium was just visible. Under various conditions, such as after boiling the lead for a long time, the 3 line was obtained. It was not obtained when the fresh precipitate of the lead-tree was used. Kahlbaum's chemically pure lead gave an appreciable amount of " $X_3$ " and a trace of helium. Meteorites gave both the 3 and 4 lines, but not to the extent which would have been expected. What is this new gas? If it is  $H_3$  corresponding to  $O_2$ , it is a more permanent gas, as sparking through it has no effect; in fact, the evidence is against it being a polymeric modification of hydrogen. Mendeléeff predicted a substance of the atomic weight 3; it was to be a kind of super-fluorine, which could not, the lecturer said, be stored in glass, and " $X_3$ " can be kept for a long time in glass. But Sir James Dewar has informed him that fluorine can be stored in glass if perfectly dry. The lecturer concluded with a few words about attempts that had been made to obtain " $X_3$ " artificially by saturating metals with hydrogen, but these were failures.

**Dymal.**—Under this name the salicylates of the rare metals of the cerium group have been placed on the market, that of didymium being the type substance. The salicylates of lanthanum and cerium are also prepared. These bodies are recommended as local antiseptics for wounds, ulcers, cæzema, etc.

**Sulphur in Olive Oils.**—The presence in ordinary olive oil of olive oil which has been extracted by means of carbon bisulphide, is considered very objectionable. Millian (*Ann. de Chim. Anal.*, 1912, 1) states that the following process is very reliable for its detection: The oil (25 c.c.) is saponified in the cold by an aqueous solution of caustic potash, saturated at  $20^\circ$ , the flask being well shaken. After half an hour the soap solution is diluted with 150 c.c. of warm water, a trace of sodium bicarbonate added, and the soap decomposed by the addition of 20 c.c. of strong, pure hydrochloric acid in a flask with a narrow neck. The opening of the flask is at once covered with filter-paper moistened with a solution of acetate of lead. The presence of 0.1 per cent. of  $CS_2$  will cause a distinct blackening of the paper, while 0.2 per cent. gives an intense blackening. By keeping the flask covered for a few minutes as little as 0.5 per mille can be detected.

## NEW BOOKS.

Any of these books printed in the United Kingdom can be supplied, at the published price, to "C. & D." subscribers on application (with remittance) to the Publisher, 42 Cannon Street, London, E.C. These notes do not exclude subsequent reviews.

Browne, C. A. *Handbook of Sugar Analysis.* 8vo. 25s. 6d. net. (Chapman & Hall.)

Draper, W. P. *Notes on Chemical Research.* 7½×5. Pp. 68. 2s. 6d. (Churchill.) [An interesting little book in six chapters, dealing with the considerations which have to be dealt with by those who take up chemical research. It is reprinted from the "Chemical World." A reproduction of a portrait of Faraday forms the frontispiece.]

Gray, W. F. *Books that Count: A Dictionary of Standard Books.* 7½×4½. Pp. xvi+315+lvii. 5s. net. (A. & C. Black, 4, 5, and 6 Soho Square, London, W.) [Contains the titles, authors' names, and in most cases an indication of the contents of 5,500 books in the following divisions: I. Biography; II. Education; III. Fine Arts; IV. Geography and Travel; V. History; VI. Literature; VII. Medicine; VIII. Music; IX. Philology; X. Philosophy; XI. Religion; XII. Science; XIII. Sociology; XIV. Sports and Pastimes. Pharmacy is treated somewhat scantly under pharmacology, but more general subjects are amply dealt with. Chemistry, medicine, and photography have been assigned to each a good selection of books. It is fully equipped with indices of authors' names and titles.]

*Modern Materia Medica.* 3rd edit. 7½×4½. Pp. 282. 8s. ("The Druggists' Circular," 100 William Street, New York.) [The last edition was published about two years ago, but the present edition contains nearly six hundred new remedies. Some of the older ones, now obsolete, have been deleted. The book gives the remedies in alphabetical order, the name of the maker or American agent being given in each instance.]

*The Calendar of the Pharmaceutical Society of Great Britain, 1913.* 8½×5½. Pp. 235+list of members. 2s. (Pharmaceutical Society of Great Britain, 17 Bloomsbury Square, London, W.C.) [Supplies official particulars of the Society's work, and has lists of councillors, officers, prizemen, honorary and ordinary members, with list of subscribers to the Benevolent Fund. There is an historical introduction, and re-prints of the charters, Pharmacy Acts under which the Society works, and the by-laws. Section 15 of the National Insurance Act is given, with the regulations referring to dispensing and the supply of drugs. The syllabus of the Minor and Major examinations and particulars of the Society's school follow, while the list of local associations is very complete.]

*The Russian Year Book for 1913.* By Howard P. Kennard, M.D., and Netta Peacock. 8×5½. Pp. 809. 10s. 6d. net. (London: Eyre & Spottiswoode, Ltd.) [With the present edition this useful work completes its third year of issue. Concise information is given on a large variety of subjects dealing with Russia, these including commercial law, patent medicines, patents and trade-marks, exports and imports, trade reports, population, natural resources, mining and minerals, etc. The Russian Customs tariff, extending to 185 pages, is given in full, and under the heading of "Municipal Trade and Progress" there is a résumé of the new law dealing with the municipal control of pharmacies, which has been dealt with in the C. & D.]

*Who's Who in Science, International, 1913.* Edit. by H. H. Stephenson. 8½×5½. Pp. 572. 8s. net. (Churchill.)

*Who's Who, 1913: An Annual Biographical Dictionary, with which is incorporated "Men and Women of the Time."* 65th year of issue. 8½×4½. Pp. xxviii+2,226. 15s. net. (A. & C. Black, 4, 5, and 6 Soho Square, London, W.) [This is a marvellous collection of the biographies of 25,000 living people, the salient details of the life of each person being given in a condensed form. The book is 3 in. thick, and is brought up to August 31 by a system of personal revision which ensures accuracy. Business people as well as journalists find the book invaluable.]

*Willing's Press Guide for 1913.* 8½×5½. Pp. 487+xii. 1s. (Willing, Ltd., 125 Strand, London, W.C.) [The fortieth annual issue of this well-known Press guide. First is given an alphabetical list of the periodical publications issued in the United Kingdom, with the year of establishment, when published, price, and publisher's name and address. Then follow classified lists, Metropolitan newspapers and magazines, provincial papers classified under towns and counties, London addresses of colonial and foreign newspapers, and lists of colonial publications and the chief newspapers of the United States of America.]

## ENGLISH AND WELSH NEWS.

When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.

### Brevities.

The Margate Town Council have renewed two poison-licences.

The Chief Constable for Oldham in his annual report states that three poison-licences were granted during the year.

Among the 193 samples examined by the Lambeth analyst during December were six of drugs, all of which were genuine.

Mr. John Frederick and Edgar Ellis, nurserymen, etc., Clitheroe, have advertised their intention to apply for a poison-licence.

At the Canterbury Bankruptcy Court last week, Henry Duncan, chemist, late of Folkestone, was granted his discharge, conditionally on paying 50*l.* in four quarterly instalments.

### B.M.A. and the Chemists.

Under this title Mr. John C. Umney (President, British Pharmaceutical Conference) writes to a daily contemporary as follows :

The sittings of the Select Committee on Patent Medicines must have made it clear to the public that the British Medical Association are the bitterest opponents of the proprietary drug, and that the Government Analyst has been no more successful than theirs. As I said in my evidence before the Committee, the ingredients of certain articles cannot be readily detected by chemical analysis, and it is a fact that sometimes when analyses have been made constituents of high medicinal value have been omitted from the reports. Proprietary medicines in various forms are very largely the basis of some of the medicines contained in the British Pharmacopœia and other standard works.

### Public Veterinary Officers.

A report of the Departmental Committee appointed by the President of the Board of Agriculture and Fisheries to inquire as to the requirements of the public services in regard to officers possessing veterinary qualifications, was published last week. It appears that there has been great difficulty in getting veterinary surgeons of sufficiently high qualifications for various departments of Government service, in so far as men not only of sound scientific training, but of initiative and resource are required. The Committee in their report make recommendations with a view to removing immediate obstacles to offering greater ultimate inducements to enter the profession. A rise in the scales of salary is requisite, and they also suggest the provision of twelve scholarships, each of the annual value of 80*l.*, tenable for three years by students attending the veterinary colleges, and, with a view to post-graduate study, the institution of scholarships of not less than 100*l.* and not more than 150*l.* each, tenable for one year by selected scholars. The Committee also consider that the time has come when increased financial assistance should be given by the Government to institutions devoted to veterinary teaching, "the efficiency of which is of great importance to the State." They mention particularly the Royal College of Veterinary Surgeons, the work of which is seriously hampered by lack of funds.

### Contracts.

Newport (I.W.) Town Council.—Mr. D. F. Ritchie, Ph.C., Newport, for four tons of protosulphate of iron at 2*l.* 9s. 6d. per ton.

Gloucester Town Council.—Mr. H. R. Broad, Gloucester, for a year's supply of drugs and disinfectants to the isolation hospitals.

Government Contracts.—Admiralty: Brunner, Mond & Co., Ltd.; Chance & Hunt, Ltd.; District Chemical Co.; C. Tennant, Sons & Co., Ltd.; and United Alkali Co., for chemicals. India Office: Duncan, Flockhart & Co., for chloroform. Crown Agents for the Colonies: May & Baker, Ltd., for drugs and chemicals.

### Liverpool Notes.

At the Bear's Paw Restaurant on January 15, a hot-pot supper was held by the students of the Liverpool School

of Pharmacy. This was followed by an enjoyable concert. Mr. G. V. C. Last occupied the chair.

A sale by auction took place at Birkenhead on January 15 of the stock, fixtures, utensils, etc., of Mr. Henderson, chemist and druggist, who only commenced business at Ellesmere Port some four months ago. Consequently as the fixtures, shop-rounds, fittings, and stock were quite new, there was some keen bidding, and good prices were realised.

#### Manchester Notes.

A well-known South Manchester chemist has presented a feeding-bottle and a tin of food to the first baby born nearest to his pharmacy whose mother is eligible for maternity benefit.

The next meeting of the Insurance Committee of the Manchester Pharmaceutical Association will be held on Wednesday afternoon, January 29, at 2.30 p.m., as the evenings are now fully occupied.

#### Midland Notes.

At a carnival in aid of local charities, held in Coventry on January 16, Colonel and Mrs. Wyley attended. The latter was presented with a bouquet by a columbine who emerged from a large snowball.

The desire of the insured to get something for their money is said to have led thirty clerks in one Birmingham establishment to become suddenly ill and present themselves to their approved medical man with the object of securing prescriptions. These were dispensed at the pharmacy opposite.

An imposing list of subscriptions towards the expenses of the British Association meeting in Birmingham this year has been issued. Some 6,000*l.* is wanted. The donors include Sir T. Barclay (25*l.*), Messrs. Albright & Wilson (50*l.*), Messrs. Chance (100*l.*), Messrs. Cadbury (400*l.*), and Messrs. Lowe (P. Harris & Co.) (20*l.* 10*s.*).

#### From Various Courts.

At Mortlake Police Court on January 20, James Foster (45), described as a chemist, of 155 The Grove, Hammersmith, was fined 7*s.* 6*d.* on a charge of being drunk and disorderly at Sheen Lane, Mortlake.

At Salisbury last week, a boy named Reginald Wm. Curtis, formerly employed by Messrs. J. P. Harrison & Son, chemists, 29 Fisherton Street, and London Road, Salisbury, was bound over for a year on a charge of stealing various goods, including a camera, the property of his employers.

At Bootle on January 14, Geo. Cliffe, an errand-boy for a few days in the employ of Mr. D. Badcock, Ph.C., of 73 St. John's Road, Waterloo, Liverpool, was ordered to be detained in a reformatory for four years for stealing 7*s.* The youth was given the money to purchase stamps, but he did not return.

At Warrington on January 18, Thomas Lawton, an employé of Messrs. Joseph Crosfield & Sons, Ltd., was fined 5*l.* and costs, or in default two months' imprisonment, for stealing a large quantity of soap, scent, and other articles, the property of his employers. Thomas Oswald was fined 20*s.* inclusive, and James Marshall 10*l.* and costs, or two months' imprisonment, for receiving the stolen goods.

At Marylebone Police Court, London, on January 20, Hannah Burnett (45), who first gave her name as Fineberg, and her daughter, Kate Lewis (25), of Bedford Court Mansions, London, W.C., were committed for trial on a charge of stealing goods of the value of 8*s.* 3*d.* from Mr. H. L. Spink, chemist and druggist, 27 Tottenham Court Road, W.C. Bail was allowed, Burnett in the sum of 100*l.* and Lewis 50*l.*

At Wandsworth Police Court on January 13, Richard Banks (28), described as a pig-dealer, Tooting, was sentenced to six months' imprisonment for stealing, by means of a trick, two bottles of medicine and 18*s.* 3*d.* belonging to Mr. E. J. Munro, chemist, 141 Mitcham Road, Tooting, and with attempting to practise a similar fraud on Mr. Edward Watson, another pharmacist, of 100 Mitcham Road. At this, the second, hearing a third charge of stealing a bottle of medicine and 19*s.* 1*d.* belonging to

Mr. Robert Taylor Garton, chemist, 78 Plough Road, Battersea, was also heard. The prisoner's *modus operandi* was to enter the shops as if in a great hurry, and request that bottles of medicine be sent to a house in the neighbourhood, suggesting at the same time that the change of a sovereign should be sent in case no loose money was at hand. The prisoner stopped the errand-boy on his journey and sent him back with a worthless coin wrapped in a piece of paper in exchange for the cash and medicine. Mr. Watson sent his errand-boy with the money and medicine, but also informed the police. The prisoner, as he was about to stop the boy, saw a constable approaching and bolted, but was caught and arrested.

## IRISH NEWS.

When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.

#### Brevities.

The new pharmacy which Mr. Henry Boyers, Ph.C., has opened at Tobercurry is in charge of Mr. Hynes, Ph.C.

Mr. P. N. White, Ph.C., Sligo, was returned at the head of the poll for the East Ward at the recent election for the Municipal Council.

Messrs. Boileau & Boyd, Ltd., 46 Mary Street, Dublin, have been appointed contractors for oils to the Irish Commissioners of Public Works.

Mr. W. B. Harrington, of the Cork Chemical and Drug Co., has been elected a Vice-President of the Cork Industrial Development Association.

Mr. Maxwell Thompson, formerly with John Clarke & Co., Ltd., and now of Messrs. Elliott, Thompson & Blair, Ltd., has been appointed a member of the Committee of the North and West of Ireland Commercial Travellers' Association.

At a meeting of the Committee of Carrickfergus Technical School last week a resolution was passed unanimously congratulating Mr. Robert Cambridge, ex-President of the Chemists and Druggists' Society of Ireland, on his appointment to the commission of the peace for Co. Antrim.

All the members of the trade who stood for municipal honours in the North of Ireland last week were returned. Mr. Robert F. McCartney, Ph.C., retained his seat on the Coleraine Urban Council; Mr. Robert Hastings, J.P., R.D., was re-elected at Newcastle; and at Lurgan Mr. A. W. Mann, Ph.C., the Medical Hall, who stood for the first time, was successful.

Mr. W. J. Rankin, Waring Street, Belfast, representative in Ireland of Blyton, Astley & Co., Manchester, and Gustav Boehm, London, has taken his son, Mr. W. J. Rankin, Ph.C., into partnership, and will carry on business in future under the style of W. J. Rankin & Son. Mr. Rankin, junr., joined the staff at the beginning of 1912 in succession to Mr. D. H. McMillan, who had received another appointment.

The dispute between the friendly societies and the medical profession in Londonderry still continues, neither side showing any disposition to give way. An effort has been made by some factory proprietors to get the doctors to continue to act for factory operatives at the rate of 1*d.* per week for attendance and medicine. This scheme met with some favour for a time, but now a meeting of factory workers has been convened to protest against any partial settlement.

## SCOTTISH NEWS.

When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.

#### Brevities.

The drug department of the Dunfermline Co-operative Society, Ltd., showed an increase in turnover of fully 9 per cent. last quarter.

One of the windows in the shop of Mr. George J. Lindsay, chemist and druggist, 149 Blackness Road, Dundee,

was broken on the night of January 16. It is thought some lads wished to secure electric flash-lamps, of which there was a fine display.

At Aberdeen on January 16, before Sheriff Laing, McKenzie & Low, herbalists, 22 to 26 Marischal Street, Aberdeen, were sued by B. Roberts & Co., advertising contractors, 41 and 43 Camp Road, Leeds, for 15*l.* 18*s.* in respect of a half-year's advertising on the Palace Theatre programme, and also in respect of an advertisement on the curtain. On the suggestion of the Sheriff, the defendants offered 2*l.* 10*s.*, which was accepted, with 10*s.* 6*d.* expenses.—At the same time A. W. Shirras, chemist, 38 Powis Terrace, Aberdeen was sued for 3*l.* 18*s.* 6*d.* The Sheriff awarded 2*l.* to the same pursuers and 10*s.* expenses to the defendants on a similar claim.

#### Municipal Medicines.

The Arbroath Town Council last week approved a report of the Finance Committee to the effect that they considered the chemists' accounts for medicines supplied in necessitous cases of pulmonary tuberculosis were charged in many cases which, to the personal knowledge of members of the committee, were not necessitous. It was unanimously agreed that the accounts, which had now been all received, should be passed for payment, but that the arrangement should only continue till January 31, after which it was resolved to recommend the Council to supply nothing more until a fresh resolution is passed on the subject. This decision of the committee is to be communicated to all the medical practitioners of the town and to the chemists from whom accounts had been received.

#### Edinburgh.

At Murrayfield, on Wednesday, January 15, a football match was played between the teams "Tynecastle Wednesday" (three goals) and "Edinburgh Pharmacy" (nil).

Mr. Walter G. McNab, chemist and druggist, Goresbridge, is at present officiating as First Principal, Most Excellent Z, of the Royal Arch Chapter, Esk, 42, Dalkeith.

At the invitation of Mr. Frank Start (Kelso) to celebrate his success at the recent Minor examination, the successful students from the Central School of Pharmacy were entertained to dinner in the Adelphi Hotel on Friday, January 10. During the evening Mr. Brander, of the Clyde Street Staff, received a handsome present.

The death of Dr. George Alexander Gibson, F.R.C.P.E., at his residence here on January 15 is a distinct loss to the medical profession in the Scottish metropolis. Dr. Gibson was one of the physicians of the Edinburgh Infirmary, a leading British authority on heart-complaints, and formerly a member of the General Medical Council.

A Parliamentary paper containing the Ordinance of the Court of the University of Edinburgh for the foundation of the Robert Irvine Chair of Bacteriology has been issued. This chair is founded upon a bequest of 30,000*l.* by the late Mr. Robert Irvine, F.C.S., who was principal of Fleming's Chemical-works, Carolina Port. The money is to be devoted to the equipment of class-rooms and laboratories associated with the chair, the occupant of which is to be a Professor in the Faculties of Medicine and Science.

#### Glasgow and the West.

A petition for *cessio* under the *Cessio* Acts has been presented on behalf of Stewart Wilson, chemist, 16 Station Road, Dalbeattie, to the Sheriff of Dumfries and Galloway, and the debtor will appear at the Sheriff Court House, Kirkcudbright, on January 31, at 10.30 o'clock, for public examination.

Mr. David McNay, pharmacist, Bank Street, Kilmarnock, was on Saturday last installed as Venerable Preceptor of Moira Union Preceptory of the Religious and Military Order of the Temple and of the Order of the Hospital in Scotland. Mr. McNay has gained this high Masonic distinction after years of enthusiastic devotion to duty. He has filled all the chairs of the different Masonic Orders, is P.M. No. 252, St. John's, Thornhill, was P.Z. of the Royal Arch Chapter of Moira Union, Kilmarnock.

## FRENCH NEWS.

(From the "C. & D." Paris Correspondent.)

ANTI-TYPHOID VACCINATION.—At the Paris Academy of Sciences on Monday, January 20, Professor Chantemasse read a long communication on "Anti-typhoid Vaccination," and concluded that typhoid fever will gradually disappear from civilised countries as small-pox has done, thanks to this vaccination.

EARLY FRENCH ADVERTISING.—"Xrayser's" recent notes on the "Journal Général d'Affiches" of 1612, the first French paper containing advertisements, induced me to inquire if a number of this publication for 1612 was visible at the Paris Bibliothèque Nationale. The reply was in the negative, but I was offered Theophrastus Renaudot's pamphlet on the "Bureau de Rencontre," which the father of French journalism opened by Royal licence in 1830.

PARIS SOCIETY OF PHARMACY.—The annual meeting of this Society was held recently, concurrently with the monthly reunion for January. M. Preud'homme vacated the post of President in favour of Professor Mouren, who occupies the chair for the current year, as already announced. Each made the usual complimentary address. Mr. J. J. Hoffmann was elected as a foreign corresponding member for Holland, and Mr. Vintellesco for Roumania.

A FAMOUS "ARSENIC" CASE.—The recent opening of the discussion as to the guilt of Madame Lafarge revives public interest in this "cause célèbre" of 1840.

She was the eighteen-year-old wife of a middle-aged ironmaster, and was accused of poisoning her husband by arsenic. The interesting point of the case, to pharmacists at least, is the conflicting opinion of experts. The great Orfila's statement that he had found arsenic in the body of the dead man was what secured Madame Lafarge's conviction. . . . On September 17, 1840, at 11 p.m., a young barrister knocked at the door of Raspail. Ex-

hausted by thirty-six hours in a postchaise—for he had come straight from Tulle, where the trial was being held—he handed the eminent chemist a note :

"I am innocent and most unlucky. I am suffering, and make appeal to your science and your heart. . . M. Orfila has arrived, and I have fallen into the abyss. My hope, Monsieur, is in you. Lend the aid of your knowledge to an unfortunate victim of calumny. Come and save me while all others abandon me.—MARIE LAFARGE."

That the chemist did not hesitate for one moment is to his credit, for Madame Lafarge was to him an utter stranger. He was forty-six years of age and in indifferent health at the time, but he sacrificed his night's rest, and at 2 a.m. was posting as hard as horses could carry him on the Southern highway. But Nature revenged herself; he arrived at Limoges in a burning fever. He took a room to rest for an hour; a rumour arrived that Madame Lafarge was acquitted; he rested the night, posted another fifty miles, and arrived at Tulle just an hour too late. Madame Lafarge had been condemned to penal servitude for life. Then it was that Raspail wrote the presiding judge the historic sentence : "Give me anything you like—your own fauteuil—and I will find arsenic in it." There was doubtless in the Lafarge case, as in so many others, a feeling against the accused, caused in this case by her flippant demeanour and the May and the October marriage. Raspail has left a long description of his interview with



RASPAIL.

Madame Lafarge. He found a "je ne sais quoi d'harmonieux et de sympathique" in her character. After examining the three plates which had passed through Orfila's hands, he asked to be allowed to test the reagents left at Tulle by Orfila. The reply made was "M. Orfila left all his reagents with M. Bories, pharmacist, except his potash, his zinc, and the nitrate of potash by means of which he had obtained the stains on the third plate." "Supposing," continues Raspail, "I had acted like Orfila (as he did on another occasion) applying the pretty expression of 'ignorant crowd' to the host of reagents obtained from local pharmacies and bringing purposely from Paris a nitrate of potash capable of revealing a poison where no other reagent could find an atom, what would the Advocate-General have said? Would he not have at once required that the Parisian phial of nitrate should be examined by the experts present?"

THE FIRST SERIOUS WORK ON DENTISTRY published in France was Arnaud Gilles' "Fleur de Rémèdes contre le Mal de Dents" (1633). He was one of the first to propose prothesis, or the use of artificial teeth. The real art of dentistry as a serious science, however, must be considered to date from Pierre Fauchard, whose "Chirurgien Dentiste" (1728) tells us that no dental school of any kind existed in France at that period. He was a pupil of Alexandre Poteleret, a naval surgeon, and inherited the hate of his master for charlatans.

M. GABRIEL FERMÉ, 55 Boulevard de Strasbourg, Paris, has been nominated a member of the Chambre de Commerce de Paris, a distinction which is esteemed in commercial circles, the number of members of these statutory bodies being limited, and they are elected as representatives of various bodies of trade. M. Fermé is a pharmacien engaged in the export trade of drugs and chemicals. He has as a colleague in the same Chamber M. Charles Crinon, the prominent Paris pharmacist, and it will be remembered that the late M. Funouze was the distinguished Pharmacien-President of the same body during the great Exhibition here in 1900.

PHARMACY TEACHING.—In a report to the Chamber of Deputies by M. René Viviani, on behalf of the Budget Committee, the reform of the pharmaceutical curriculum is alluded to. The committee

"does not deny the importance of the reform, but being informed of the regrettable way in which pharmaceutical instruction is distributed in France, and that the number of pharmacy students is decreasing in an alarming manner—in ten years the total has diminished by two-thirds—the committee asks itself whether, before carrying out such a reform, the Government ought not to attempt to reorganise the studies themselves in the Mixed Faculties and superior schools. In other words, we think schools are too numerous, too dispersed, and that it would be more advantageous, from every point of view, to group all the French pharmacy students in a smaller number of schools."

BEFORE THE FOOTLIGHTS.—Zoraya, the heroine of Sardou's play "La Sorcière," which was staged as a musical play at the Paris Opéra Comique just before Christmas, is the daughter of Abou-Aza, physician to Boabdil, last Moorish monarch of Granada. She possesses all the pharmaceutical love of that cultivated Mahometan race who were the first in Europe to practise pharmacy as a separate art. She tells Palaceos, the handsome Spanish captain, who meets her herbalising by moonlight, that "she extracts from the soul of flowers unguents, elixirs, and powders to heal the sick. The ruddy fruit of the black henbane and belladonna," she continues, may "provoke madness," but they also "lull our pains to rest." They are like love, physic, or poison, according to the case and the dose. She is incidentally an expert in mesmerism, and hypnotises the fiancée of Palaceos, the daughter of the Governor of Toledo, on the eve of her wedding day. The Christian lover kills an agent of the Inquisition who has come to arrest Zoraya on a charge of sorcery. Both are captured and judged by the dread tribunal and only escape death at the stake by taking poison. Sardou's minute attention to details is well known, and the Inquisition doctor Cleofas discourses learnedly of sound and orthodox remedies, such as hartshorn, oil of ants, beetle salt, and precious stones.

## AUSTRALASIAN NEWS.

"The Chemist and Druggist" is regularly supplied by order to all the members of nine Societies of Chemists in Australia and New Zealand, and to many other Chemists in business there.

### The Commonwealth.

PROPRIETARY WINES.—It is evident the Minister of Customs is using the proprietary medicine question to try to stir up public feeling against State rights in favour of Commonwealth rights. The report on medicinal and tonic wines, by H. C. O. Willgerodt, Acting Federal Analyst, supplied on October 24 was ordered to be printed on November 20. It gives the alcoholic strengths of six medicinal and tonic wines, which run at 25, 26, 28, 29, and 32 per cent., analysed in 1910, 1911, and 1912. These are: Hewlett's Beef and Iron Wine, Stearns' Wine and Cod-liver oil, G. Bright's Beef, Iron, and Wine Tonic, Junora Wine, W. Cornell's Vin Sanguis, and Hall's Tonic Wine. The report states that under the Victorian Health Act sweet wines are fixed at 35 per cent. proof spirit, and a comparison is made, not at all fairly, with beer, porter, and similar alcoholic drinks, quotations being given in order to show that the sale and use of these wines is injurious to the public good.

### New South Wales.

CHARGES FOR BOTTLES.—A circular issued by the wholesale drug-houses on November 23 announces that from December 1, 1912, no allowance will be made for empty returns, either cases or bottles, with a few exceptions. This apparently is made to apply to the country only. The circular gives the names and addresses of persons in Sydney who are prepared to purchase empties. The circular states that the hardware, soft-goods, and grocery trades have already taken action in a similar direction.

EARLY CLOSING.—The Early Closing Bill was re-committed on November 27, when an acrimonious debate took place on clause 16 on the amendment moved by the Minister to the following proviso :

"Provided also that no registered pharmacist within the meaning of the Pharmacy Act, 1897, shall be guilty of the said offence by reason only that he has, after the said closing time, supplied any drug, patent or proprietary medicines, or surgical appliances."

The Minister moved the addition of the following words :

"That is shown to be urgently required either by a prescription so endorsed by a legally qualified medical practitioner or by declaration to that effect in the prescribed form made by the applicant or purchaser."

The discussion began at about 1 A.M. and lasted for three-quarters of an hour. The amendment was carried by 31 votes to 24. The report of the Committee was adopted next day. On December 3, when the Bill came up for further consideration, it was announced that owing to its contentious nature it would be held over till next session.

### Victoria.

THE SPOONFUL MEASURE.—The Pharmaceutical Society of Australasia has arranged that delegates from the British Medical Association (Victorian Branch) will attend the meeting of the Australian Pharmaceutical Conference this month and discuss with the members of the Conference the best means of carrying out the suggested abolition of the spoonful as a measure for medicines.

FLAW IN THE POISONS ACT.—At the meeting of the Pharmacy Board of Victoria on November 13, an application was considered from S. A. Gregg, Poowong, for a certificate under the Poisons Act. A certificate was refused the previous year on the ground that the applicant was within four miles of a registered pharmaceutical chemist keeping open shop. The application was renewed on the ground that Poowong is not a place distant four miles from any city, town, or borough, in which no registered pharmaceutical chemist has an open shop. It was contended that Loch, where a registered pharmaceutical chemist has an open shop, is not a city, town, or borough, and that, therefore, an applicant who brought himself

within the statutory requirements of the section and furnished a certificate from a legally qualified medical practitioner, must receive a licence under the Act. As this is a new construction of the section it was resolved that it should be submitted for legal opinion, which the Registrar stated he had already obtained. The opinion was to the effect that as Poowong and Loch are not cities, towns, or boroughs in which a registered pharmaceutical chemist has an open shop the Board has no discretionary power, and must grant the certificate.

### Western Australia.

**PHARMACISTS LIBELED.**—An extraordinary attack on chemists was made in the House of Representatives on November 26 during the debate on the estimates of the Medical Department. Mr. Heitmann, a member of the Labour Party, and a vigorous opponent of the Pharmacy Bill, stated that thirty-seven pharmacies had been visited and the assistants asked to supply abortifacients. Twenty-three shops were stated to have supplied aloetic or ferruginous pills; in one case the pills contained borax only and in another case potassium permanganate. The same member quoted from the partisan report of Mr. Octavius Beale. Mr. Thomas, who is a pharmacist and a member of the House, made an able and impassioned reply. He stated that the law is strong enough to deal with cases that are proved, and declared that it is an abuse of the privilege of Parliament to spread evil reports about an honourable profession.

## INDIA AND THE EAST.

(From the "C. & D." Correspondents.)

**OPIUM SUPPRESSION IN SHANGHAI.**—The "North China Daily News" of December 21 stated that more proclamations have been issued by Mr. Yen, local director of the Shanghai Bureau for opium suppression.

**VANILLA CULTIVATION IN CEYLON.**—The cultivation of vanilla was taken up in Ceylon some time ago and went on very successfully in Matale, Wattegama, Galagedera, and other districts, but with the extension of cultivation prices dropped, and practically put an end to the industry.

**THE TOKYO COLLEGE OF the Charity Hospital** is the only medical school at which the English language and the English method of teaching are used in Japan, all the other colleges following German methods. Dr. Baron Kanehiro Takagi, retired naval surgeon-inspector-general, the superintendent, was educated in England, where his two sons also gained their medical knowledge.

**SOYA-BEANS IN CEYLON.**—The cultivation of the soya-bean has not caught on in Ceylon. Some time ago the Ceylon Agricultural Society ordered 2 cwt. of beans from Java for a few members, the beans from that country being found more suitable for Ceylon. Previously beans were obtained from the Straits, but were not a success. Cultivation is being carried on successfully in Jaffna, Kalutara, and Puttalam, and even in the Kandy district.

**DURING THE TEN MONTHS** ended October 1912 the exports of "drugs, chemicals, medicines, pigments, and coatings" from Japan were valued at 19,193,112 yen, against 16,876,843 yen in 1911 and 16,301,590 yen in 1910. The imports of "drugs, chemicals, medicines, compounds or preparations thereof, and explosives" during the same period of 1912 were valued at 28,570,009 yen, as compared with 25,374,225 yen in 1911 and 21,898,340 yen in 1910. We notice largely increased imports of cocaine and morphine salts during this year—viz., 31,619 oz. and 24,958 oz. respectively.

**A MASONIC PRESENTATION.**—Mr. C. B. Robinson, J.P. (principal of Messrs. Thomson & Taylor, chemists and druggists, Bombay) the Deputy District Grand Master for Bombay and its territories, has been presented by his brother Masons at the Masonic Temple, Bombay, with a magnificent casket, which was in the shape of a large silver column surmounted by a globe. A very handsome regalia, a fine jewel, and an address accompanied the main gift. A banquet followed the presentation. Mr. Robinson is a well-known public man, and a Mason of twenty years' standing.

## COLONIAL AND FOREIGN NEWS.

**URUGUAY CUSTOMS DUTIES.**—The Uruguayan Government are making important tariff changes, granting exemption from or reduction of Customs duty in respect of certain articles destined for industrial purposes. A summary of the new provisions was published in the "Board of Trade Journal" recently. Among the articles to be duty-free are:

Borate of lime, arsenic, sulphuric acid, sulphur candles. The undermentioned articles are to pay percentage rates of duty as shown below:

25 per cent.: Carbonic acid; bisulphite of soda; "calcejugo"; animal carbon; formal; glycerin; tinfoil; filter-paper, in sheets and "pasta"; salt of antimony; 10 per cent.: acetate of lead; lubricating oils; liquid ammonia; acetate of soda; betanaphthol; hyposulphite of soda; nitrite of soda; resin; sulphide of soda; crystallised sulphide of soda; alum; chloride of magnesium; tartar emetic; turpentine; yolk of eggs; 5 per cent.: Coal oil; coconut, palm, and castor oils, denatured; sulphate of lime; cyanide of silver, pure; chloride of gold; acetate of copper; phosphate of soda; nitric, oxalic, and lactic acids; chrome alum; aniline, all kinds; pyrolineous acid; hydrochloric acid; common alum; red Turkey oil; butyric and formic acids; bichromates of potash and soda; catechu; sulphate of soda; carbonate of ammonia; commercial carbonates of soda; carbonate of potash; colours for paints; hematin; crude carbolic acid (phenols); oxide of manganese; prussiate of potash; caustic potash; caustic soda; resin for varnishes; borate of magnesia; sulphate of iron and copper; sulphocyanide of ammonia or of potash; potato starch; Epsom salts (*salt inglesa*); chloride of lime; fluoride of calcium; cryolite in powder; nitrate of potash and soda; oxide of lead; cresylic acid; Vienna lime; sulphate of nickel.

## OUR GERMAN LETTER.

(Special Correspondence to the "C. & D.")

**Professor Dr. Carl Binz**, the doyen of the medical faculty, has died in Bonn at the age of eighty. He had been Lecturer on Pharmacology at Bonn University since 1862, and in 1869 he founded the Pharmacological Institute there. From 1875 until 1908 he was ordinary professor, when he retired. His "Principles of Pharmaceutics" is his best-known work, and he established the manner in which quinine acts upon the system.

**Modern Synthetic** products, largely the result of German chemical research, are used in Germany to an extent which is scarcely realised in Great Britain. The substitution of registered products by their chemical equivalents, offered at lower prices than the trade-marked article, also plays a very important rôle in German pharmacy. This is especially due to the fact that when prescribing for club patients the doctors are practically forbidden to prescribe protected products, and for the sake of economy have to adopt the scientific nomenclature under which the corresponding substitute is issued. Some time ago the association of sick clubs in Württemberg entered into an arrangement with a number of club doctors and pharmacists, whereby it was agreed that when one of the club doctors prescribed a protected product under its registered name the pharmacist would in every case dispense the corresponding substitute. The chemical manufacturers protested against this violation of the trade-mark laws, but no action was taken to test the legality of the step. Now, however, the manufacturer of Pyrenol has taken legal proceedings against the association of Württemberg sick clubs to compel them to desist from this arrangement. The two lower courts in Stuttgart dismissed his claims, but the Imperial Court in Leipsic, the highest, on appeal, has given a verdict in his favour, on the grounds that an agreement forcing the pharmacist to dispense another preparation instead of the one actually named in the prescription is a fraudulent action detrimental to the interests of the owner of the trade-mark, and ordered the association to abstain in future from carrying into effect its agreement regarding the substitution of this preparation.

IT IS STATED in "Reynolds's Newspaper" that in Society circles chamomile tea is being served after luncheon, with the idea of promoting digestion and beauty. A label for chamomile-flowers, with directions for making the infusion, would seem to be necessary.

## LEGAL REPORTS.

### TRADE LAW.

**Dutiable Salves.**—At the Doncaster Borough Court, Thomas Martin, labourer, of Mexborough, was fined 2s. 6d., and costs, on each of two summonses under the Medicine Stamps Act respecting the sale of a dutiable ointment un-stamped. Patrick Mulehoey, Excise officer, Mexborough, stated that he visited defendant's house, and found advertised "Good salves for eczema or skin-trouble sold here. Boxes, 1d., 2d., and 3d." He purchased a box, which was unstamped, and the defendant was not licensed.

**Employes' Meal-hours.**—Under Section 14 (2) of the Shops Act, when a manager or other agent of the occupier of a shop commits an offence he may be summoned in place of his employer. At Burnley on January 16, the manager of a local firm, who had not taken a clear half-hour for tea on December 21, was prosecuted by his employers. It was stated that the manager had definite times for meals, and had instructions to see that assistants had their meals before those times. If the assistants did not return before the stated hours the managers had instructions to lock up the shops. The case against the firm (who were prosecuted by the authorities) was dismissed, and the manager was fined 10s.

**Law Costs.**—In the Lord Mayor's Court on January 20, before the Recorder (Sir Forrest Fulton, K.C.) and a jury, the case of Arnold & Cubison *v.* Wohle was heard and disposed of. The plaintiffs, solicitors, of Dove Court, Old Jewry, London, E.C., sued Mr. S. Wohle, consulting and analytical chemist, 59 Southampton Row, London, W.C., for 14*l.* 10s. 2*d.*, balance of a bill of costs for professional services rendered in connection with a summons issued from the Bloomsbury County Court, which the plaintiffs defended for him, obtaining judgment. The bill of costs amounted to 18*l.* 0*s.* 2*d.*, and after giving credit for 3*l.* 10*s.* paid in respect to counsel's fees there was a balance now sued for. The defendant now said that 3*l.* 10*s.* was the sum agreed to for conducting the case. The jury found a verdict for the plaintiffs, and judgment was entered accordingly for the amount claimed, subject to the bill of costs being taxed.

**Paying Accounts to Travellers.**—In the City of London Court last week, during the hearing of a case in which a person was sued for payment of 19*s.* for goods supplied, the defendant tendered the money, explaining that he had already paid the account to the traveller. The plaintiffs responded that he ought not to have paid the traveller, as they stated very clearly on their invoices "All accounts must be paid direct to the firm." Judge Rentoul, K.C., said he was not going to allow the defendant to pay the debt twice over; nor did he think he should have been sued in London at all. That sort of thing was constantly happening. Travellers were sent out without their employers knowing anything about them, and they sold goods and took the money when they had no business to do anything of the sort. Employers should insist on taking security from their travellers before they let them loose on the traders of the country. It was a hardship on the plaintiffs to lose their money, but a greater hardship on the defendant and other traders throughout the country who were defrauded by travellers. Plaintiffs' Representative: "The customers bring it upon themselves." His Honour strongly dissented from that. Plaintiffs' Representative: "City people will be in a very bad position if your judgment gets known." Judge Rentoul hoped his judgment would get known very widely. He would not allow a man to pay a debt twice over. The money would be sent back, and judgment given for the defendant.

**A Chemist's Shop Repairs.**—At the Croydon County Court on January 21, before Judge Harington, Cleasby Chorley, chemist, Market Place, New Malden, sued John Angell James Totten, 530 Kingston Road, Raynes Park, to recover 14*l.* 8*s.*, balance of account in respect to the purchase of the goodwill, fixtures, etc., of a chemist's business at Chorley House, Chesham Common, Worcester Park. Mr. Moresby, barrister, was for the plaintiff, and Mr. O'Malley represented the defendant, who counterclaimed 20*l.* for loss of business, cleaning furniture, and estimated cost of repairs. The evidence was that the defendant agreed to purchase the business at a valuation by a certain date, on the understanding that the place was in good and tenable repair; but the defendant said that at the date named he could not use the shop because it was in the hands of the workmen, and some of the shop furniture was damaged. Mrs. Chorley said that her husband is in South Africa. They lived in the house at Worcester Park some years before it was sold. The premises were in good repair, and they were so when handed

to the defendant, who with his wife went over them. She saw the men at work, and there was a little trouble about a bedroom. On November 7 defendant's solicitors wrote, and said that if, in addition to what had been done, the window and a sink were seen to the defendant would be satisfied. Mr. Everett, a plumber, etc., said he saw everything put right. Mr. Nichols, an architect, said the repairs were done, and that the house was in a proper state. The defendant said when he went to the house on September 30 it was not in proper repair, and he was unable to begin business for a fortnight. He estimated his loss at 2*l.* a week in regard to that. The repairs were badly done, and the shop-fittings were damaged. According to the estimate of a builder the repairs would cost 11*l.* 10*s.* 6*d.* In the end his Honour said there were some small defects which could be made good at a small expense, but "the law did not consider small things"; and gave judgment for the plaintiff on the claim and on the counterclaim.

**A Suppositories Case.**—At the Berks Assizes, Reading, before Mr. Justice Channell and a special jury, on January 15, the hearing was commenced of an action by Mr. C. W. Cope, Hungerford, on behalf of his infant child, against Mr. A. H. Bingham, chemist, Hungerford, for damages for morphine-poisoning and shock. The plaintiff originally sued for 6*l.* 17*s.* 2*d.*, medical expenses which had been paid. It appeared from the statement made on behalf of the plaintiff that Mr. and Mrs. Cope had dealt with Mr. Bingham for many years, and had been in the habit of obtaining from him for the use of the child glycerin suppositories manufactured by Messrs. Butler & Crispe. On February 28 they obtained a box of suppositories from defendant, and those supplied contained morphine. One was administered to the child when it was asleep, and it remained asleep in the mail-cart out in the open air, but as it did not awake at its usual time the mother became alarmed, and a doctor was called. It was only by strenuous measures that the child could be waked at two o'clock next morning. It had not been the same since. Medical evidence was given in support of the statement, and as to the present condition of the child, who was six months old in February. The mother also gave evidence, but no further evidence for the plaintiff was called, in view of a communication received from the jury. Mr. Bingham stated that he saw the baby on March 1, when it seemed fairly well, and he had a conversation with the medical attendant two or three months afterwards, when the doctor informed him that, although he had been called in to see the child since the incident, it was only because of teething and not arising out of the case. Counsel on both sides addressed the Court. In the course of his statement for the defendant, Mr. Walsh emphasised the fact that there was no negligence on the part of Mr. Bingham, who, he said, had a case against the manufacturers, who sent morphine suppositories in mistake; and Mr. Matthews, for the plaintiff, entirely sympathised with Mr. Bingham. Mr. Justice Channell then summed up, and said he had difficulty in saying what would be a proper sum to give the child, and could quite understand that the parties were not able to come to an agreement upon it. He did not know that they could have done better than come before an independent tribunal to assess the damages, apart from the fact of the expense of the proceedings, and he considered that the father was more or less bound to bring the action, and the defendant was equally bound to defend it, as he hoped to recover against the manufacturers. The jury, after a short retirement, found a verdict for the plaintiff, with 50*l.* damages. His Lordship, in recording the verdict, congratulated the baby for having the luck of not being poisoned. This decision was given on Thursday, the hearing having lasted into that day.

### Sale of Food and Drugs Acts.

#### MALT VINEGAR.

The Liverpool Stipendiary, on January 15, heard the adjourned summons against Robert Law, of 303 Park Road, Liverpool, chandler, for selling as malt vinegar something which contained 50 per cent. of vinegar derived from other sources than malt (see *C. & D.*, December 28, 1912, index folio 943). The vinegar was supplied by Messrs. Purnell & Panter, Ltd., vinegar manufacturers, Bristol, and their witness stated that its constituent parts were 30 per cent. of malt, 40 per cent. of barley, and 30 per cent. of other cereals. The Stipendiary, in imposing a fine of 5*l.*, with costs, held that malt vinegar meant that it was made either solely from malt or from malt and barley, and in those circumstances the so-called malt vinegar which had been sold by defendant was not, in fact, malt vinegar. It had been urged that Law is an innocent tradesman who had merely sold what had been

supplied by the manufacturers, believing it to be as guaranteed. That might be so, but a tradesman is rightly held responsible for the quality of the goods he sold.

### Dentists Act.

#### USE OF FOREIGN TITLES.

At Bow Street Police Court on January 17, Mr. Curtis Bennett gave his considered decision in the case in which Maurice Palm, Great Russell Street, W.C., was summoned for using the description "Dr. Mountjoy Bartlett, D.D.S. U.S.A., L.D.S. Trl. [Transvaal]," implying that he was specially qualified to practise dentistry, he not being registered under the Dentists Act and not being a legally qualified medical practitioner. Mr. R. W. Turner supported the summons on behalf of the British Dental Association. Mr. H. H. Curtis Bennett defended. The hearing of the case was reported in the *C. & D.*, 1912, II, 943. Then Mr. H. H. Curtis Bennett argued that, inasmuch as it had been shown that the qualifications used by the defendant would not entitle him to be registered, the summons must be dismissed, as the High Court had held that what an unregistered practitioner must not say was that he had qualifications which entitled him to be registered.

The Magistrate now said that the Dentists Act had, since it was passed, given a great deal of benefit to the legal profession. A number of decided cases had been reported and a number of decisions had been set aside by the Appeal Court. Judges of the High Court had confessed that decisions which they gave in former cases were wrong, and it was evident that the English Courts did not understand the Act. It had been stated in this case that the defendant had carried on his business as "Dr. Mountjoy Bartlett," but no objection was made to his not using his own name. The defendant had a right to say that his teeth were fitted without plates, that he fitted teeth painlessly, and to puff himself; but from a decision by the House of Lords in an Irish case [see report in *C. & D.*, 1910, I, 210] it was clear that even if he possessed a degree, he was not entitled to use it unless he was registered. The defendant was not registered and had not applied to be registered, and therefore he was not entitled to use these initials after his name. He would have to pay a fine of 10/- and 5/- costs.

Mr. Curtis Bennett asked the Magistrate whether he held as a fact that the qualifications which the defendant had used entitled him to be registered. In the House of Lords case the Lord Chancellor used the words: "If a man uses a title or description which would entitle him to be registered, then he comes within the Act."

The Magistrate: I am not quite sure that they would entitle him to be registered. I have not had that evidence before me. I do not hold either way.

On the application of Mr. Curtis Bennett, the Magistrate consented to state a case for the consideration of the Superior Court.

## BANKRUPTCY REPORTS.

**Re William Haythornthwaite**, Docking (Norfolk). Chemist and Druggist.—A first and final dividend of 8s. in the pound is to be paid to the creditors.

**Re William Baker**, lately trading as W. Baker & Co., Bristol, Wholesale Druggists.—The public examination of this debtor was held at the Guildhall, Bristol, on January 17, when the liabilities were put at 1,230/-, and there was a deficiency of 893/- The facts were fully reported by us last month (*C. & D.*, 1912, II, 909), and now, after the debtor had been questioned by a creditor, the case was adjourned.

## GAZETTE.

### Partnership Dissolved.

**CLIFFORD, T., and TALBOT, P.**, "Thornhill," Acres Lane, Stalybridge, surgeons and general practitioners; under the style of Clifford & Talbot.

### The Bankruptcy Acts, 1883 and 1890.

#### RECEIVING ORDER.

**LANG, JACKSON**, Old Burlington Street, London, physician and surgeon.

## LIMITED COMPANIES.

### New Companies Registered.

The letters P.C. mean Private Company within the meaning of the Companies Act, 1907, and R.O., Registered Office.

**FRENCH SULPHATE COPPER, LTD.** (P.C.)—Capital 3,000/-, in 1/- shares. R.O., 4a Cockspur Street, London, S.W.

**AMALGAMATED ENTERPRISES, LTD.** (P.C.)—Capital 2,000/-, in 1/- shares. Objects: To carry on the business of makers and vendors of proprietary remedies, etc. The first directors are F. B. Pryor, 90 Victoria Avenue, Southend-on-Sea, and H. B. Pryor.

**BRITISH CHEMICAL CO., LTD.** (P.C.)—Capital 60,000/-, in 1/- shares. Objects: To acquire the business of the British Chemical Co., Ltd. The first directors are W. A. Smith (chairman), A. G. Kidston, and W. G. O'Beirne. R.O., 2 West Regent Street, Glasgow.

**ROWCROFT & CO., LTD.** (P.C.)—Capital 500/-, in 1/- shares. Objects: To carry on the business of chemists, druggists, patent-medicine vendors, wine and spirit merchants, etc. F. H. Rowcroft, 66 Week Street, Maidstone, chemist and druggist, is the first director.

**BOWER & SONS, LTD.** (P.C.)—Capital 1,000/-, in 1/- shares. Objects: To carry on the business of manufacturing, dispensing, and retail chemists, druggists, etc. The directors are F. R. Bower, Cinderford, Gloucestershire, pharmacist, and Mrs. M. A. Bower, Allandale, Cinderford.

**EAST ANGLIAN WOOL WOOL CO., LTD.** (P.C.)—Capital 2,000/-, in 1/- shares. Objects: To take over the business of a wood-wool manufacturer carried on by W. O. Snelling at Waterman Yard, St. Margaret's, Norwich. The first directors are W. O. Snelling, W. B. Girling, and W. Rudderham.

**H. BUCKLEY, LTD.** (P.C.)—Capital 2,500/-, in 1/- shares. Objects: To carry on the business of manufacturing, analytical, and wholesale manufacturing chemists, professional drysalters, etc. The subscribers and first directors are H. S. Lockwood, Manchester, and J. B. Wood, 23 Bridge Street, Lockwood, Huddersfield, chemist.

**PATRINGTON DRUG-STORES, LTD.** (P.C.)—Capital 250/-, in 1/- shares. Objects: To carry on the business of manufacturing, wholesale, and retail chemists, druggists, drysalters, etc., and to adopt an agreement with R. L. Robinson and J. Richardson, who are the subscribers and first directors. R.O., Market Place, Patrington, E. Yorks.

**BUTE'S PHARMACY, LTD.** (P.C.)—Capital 100/-, in 1/- shares. Objects: To take over the business of a chemist carried on by J. F. Sutton at 51a High Street, Camden Town, N.W., as "Bute's Pharmacy." The first directors are J. F. Sutton, Isabel Sutton, and G. J. Andrews, M.P.S., G.B. R.O., 51a High Street, Camden Town, London, N.W.

**EASTERN CHEMICAL CO., LTD.**—Capital 100,000. Objects: To acquire from H. H. Morris, Gorton Brook Chemical Works, Manchester, certain plans, specifications, and information obtained or prepared by him in connection with the establishment in India of works for the manufacture of sulphuric acid and other chemical products, etc.

**QUILLIAIA CO., LTD.** (P.C.)—Capital 2,000/- Objects: To acquire from H. W. Moore, A. W. Thompson, and S. Apfel information as to processes of manufacture and the right to manufacture and deal in a product known as "Quillaia," and to acquire other inventions for detergents. The first directors are S. Apfel and A. W. Thompson, 40a Queen Street, London, E.C.

**MERVENE CO., LTD.** (P.C.)—Capital 500/-, in 45 10 per cent, cumulative preference shares of 10/- each and 50 ordinary shares of 1/- each. Objects: To carry on the business of manufacturers of and dealers in soap, soap-powders, starch, bleaches, dyes, etc. The first directors and managers are H. J. Stewart and W. D. Palmer. R.O., Cherry Gardens Place, Bermondsey, London, S.E.

**ALBION PURESOPE, LTD.** (P.C.)—Capital 2,000/-, in 1/- shares. Objects: To carry on the business of manufacturers of soap for textile, laundry, domestic, and painters' purposes, etc., manufacturing chemists, etc., to acquire the business of the Albion Co., 32 Dock Street, Leeds, and to adopt an agreement with J. W. Bradley and E. E. Lord, who are the subscribers and first directors.

**WILLIAM LAIRD & CO., LTD.** (P.C.)—Registered in Dublin. Capital 1,500/-, in 1/- shares. Objects: To acquire and carry on the business of manufacturing chemists, druggists, etc., carried on at 69 Upper Sackville Street, Dublin, under the style of "Wm. Laird & Co." The first subscribers and directors are G. A. McL. Lee, Ph.C., Dublin, and Mrs. A. B. Laird, Dublin. R.O., 69 Upper Sackville Street, Dublin.

Miol, Ltd.—Capital 50,000*l.*, in 25,000 7 per cent. cumulative participating preference shares of 1*l.* each and 100,000 ordinary shares of 5*s.* each. Objects: To adopt an agreement with the Miol Manufacturing Co., Ltd., and its liquidator, for the acquisition of the business carried on by the said company, for the manufacture and sale of an iodophosphated compound of malt and oil known as "Miol" and "Miotannol," and to carry on the business of manufacturing chemists, etc. Minimum cash subscription, 2,000*l.* The first directors are H. Watson, C. T. Green, R. F. Owen, and W. J. Hopkinson. Remuneration, 160*l.* each per annum and 10 per cent. of the net profits after 10 per cent. dividend is paid, divisible. R.O., 82 Southwark Bridge Road, London, S.E.

### Company News.

W. J. BUSH & CO., LTD.—The directors announce an interim dividend of 4 per cent.

PARKE'S DRUG-STORES, LTD.—At the annual meeting, held at 65 Harrold Street, London, N.W., on January 21, the Chairman (Mr. P. Warnford-Davis, J.P.), in moving the adoption of the report and accounts (C. & D., January 18, index folio 78), first of all referred to competition. In dealing with finance, he said the Shops Act is going to cost the company something between 4,000*l.* and 5,000*l.* a year, as they did not recover to-morrow business lost to-day, especially in the department upon which they rely most for their profits—namely, the fancy trade. In regard to Insurance dispensing, it was mentioned that the list of prices which could be charged is not generous, and it remains to see if they are going to pay. The resolution was adopted *nem. con.*

G. B. KENT & SONS, LTD.—The annual report for the year to September 30, 1912, states that, after allowing for bad and doubtful debts, depreciation, etc., there is a balance of profit of 15,074*l.* 19*s.* 9*d.*, to which have to be added the balance brought forward from the previous year and the transfer fees. On the other hand, there are to be deducted interest on mortgages and loans, income-tax, and directors' fees, also interim dividend on the preference shares duly paid, leaving a balance of 10,927*l.* 9*s.* 6*d.* for distribution. The sales have again constituted a record in the 135 years' history of the business. The board have paid the usual half-yearly dividend on the preference shares, placed 500*l.* to reserve, and written 754*l.* 5*s.* off goodwill, etc., and, after paying the life directors' fees (2,100*l.*), recommend a dividend of 7*1/2* per cent. on the ordinary shares thus absorbing 10,181*l.* 6*s.* 8*d.*, and leaving 746*l.* 2*s.* 10*d.* to be carried forward.

### The Five Little Coppers.

(By the Printer's Devil of the "Perfumery and Essential Oil Record," after seeing a certain advertisement in the issue of January 21 to the effect that during 1912 at least five well-known widely distributed "Brands" of bergamot were sold as pure, and delivered adulterated.)

Five little coppers, set in a row,  
Labelled, "Ol. Bergamot"—that's all they know.  
Terpinyl Acetate in No. 1.  
Saponification too slowly done.  
Glyceryl Acetate in No. 2.  
Washing with alcohol shows it too true,  
Rotation 26: Poor No. 3!  
Orange Oil present—what else could it be?  
Two little coppers, left side by side.  
Which is the better? Who can decide?  
Chemists say 4; perfumers say 5.  
Everyone doubting what test to contrive.  
Up comes the dealer, a very "naïve man,"  
Saying, "Judge by your nose, if no analyst can."  
*P. & E. O. Record.*

THE CIVIL WAR.—Doctor's Wife (just returned from visiting): "I saw Dr. Brown's wife this afternoon," Husband: "Oh! Did you speak to her?" Wife: "No, indeed! I cut her. She was wearing a 'Panel' skirt."—*Punch.*

JAPANESE LOOFAHS.—H.M. Commercial Attaché at Yokohama reports that the total yield of loofahs in Japan for 1912 amounts to about 2,500,000 fifties and the same number of seconds, of which 4,200,000 were produced in Enshiu, 600,000 in Joshiu, and the balance in Boshiu; the crop was a failure in Kiushiu.—*Board of Trade Journal.*

### BIRTHS.

AKEROYD.—At 29 Landrock Road, Crouch End, London, N., on January 22, the wife of G. I. Akeroyd, chemist and druggist, of a son.

WINK.—On January 19, at 27 Panmure Road, Cottenham Park, Wimbledon, the wife of Ian G. S. Wink (China and Japan Trading Co., Ltd.), of a daughter.

### MARRIAGES.

ECCLES—SPENCE.—At the Presbyterian Church, Athy, on December 5, 1912, by Rev. D. Meeke, B.A., Robert Irwin Eccles, Ph.C., Athy, to Annie Winifred, second daughter of Mrs. Spence, Bexley, Sydney, Australia.

ECCLES—YOUNG.—At St. Augustine Church, Doornfontein, South Africa, on December 7, by Rev. Canon Moore, Dr. Bert J. Eccles, brother of Mr. R. I. Eccles, Ph.C., Athy, to Grace, daughter of Mrs. Young, Yeoville, S.A.

SOUTHALL—READHEAD.—At All Soul's Church, Portland Place, London, by the Rev. F. S. Webster, M.A., on January 21, Christopher, son of Mr. Alfred Southall, Ph.C., Birmingham, to Elsie, daughter of Mr. James Readhead, Westol Hall, South Shields.

### DEATHS.

BERTIE-SMITH.—A cabled message to Mr. J. C. Umney, Editor of "The Perfumery and Essential Oil Record," states that Mr. A. E. Bertie-Smith has died at Entebbe, Uganda, where he had been carrying on a store business for some years. Mr. Smith had been brought up to the drug-trade, and spent many years in Bombay, where he founded a wholesale drug-business, in which he had several partners, including a brother. He returned to England a dozen years ago or more, and put on the market a liquid petroleum for internal use, when the merits of this medicinal agent were not so well known as now. Some years ago he went out to British East Africa to take up a Government post as storekeeper and dispenser, and after his engagement terminated he started business on his own account. He was over fifty years of age, and was married. Some record of Mr. Bertie-Smith's work in India was published in the C. & D. of July 19, 1890.

DALE.—At 16 Roberts Place, Bradford, recently, Mr. Alfred Dale, chemist and druggist, late of Scarborough and Robin Hood's Bay, aged seventy-nine. Mr. Dale was in business prior to the passing of the 1868 Pharmacy Act.

DIXON.—Recently, Mr. F. S. Dixon, chemist and druggist, Market Street, Millom, Cumberland, aged thirty-six. Mr. Dixon, whose fatal illness began by contracting a chill, served his apprenticeship at Dalton, and had carried on business at Millom for about fourteen years, first in St. George's Terrace and afterwards in Market Square, where he succeeded Mr. J. L. Roberts on his retirement.

HENSHALL.—At Conway, on January 15, Mr. Harry Henshall, chemist and druggist, who was formerly in business with his father, Mr. James Henshall, chemist and druggist, at Post Office Place, Lymm, Cheshire.

HICK.—Recently, Mrs. Hick, widow of Mr. Allan Hick, chemist and druggist, Wath-upon-Dearne, aged seventy-nine. The interment took place at Wath Cemetery on January 16.

JOHNSON.—On January 20, suddenly, in London, Mr. Sidney Robert Johnson, of Messrs. T. Merry & Son, drug-brokers, 139 Fenchurch Street, E.C., and late of San Remo, Wallington, aged forty-six. The late Mr. Johnson had been identified with the Mincing Lane produce-trade for about thirty years, and was admitted a partner in the firm in 1897.

MABEN.—At 8 Rinkvale Cottages, Hawick, on January 11, Ann Armstrong, widow of James Maben, farmer, Roxburghshire, mother of Mr. Thomas Maben, Ph.C., F.C.S., Messrs. Parke, Davis & Co., aged ninety-three.

**MCINTYRE.**—At his residence, 303 West Seventy-fourth Street, New York, on January 9, Mr. Ewen McIntyre, aged eighty-seven. Mr. McIntyre was the oldest pharmacist in New York, and was Hon. President of the College of Pharmacy of the Columbia University. He was born on a farm at Johnstown, New York, on January 25, 1825, his parents having emigrated from Scotland. He worked on his father's farm until he was seventeen, when he took up the study of pharmacy in New York, and after graduating at the New York College of Pharmacy, he went into business for himself at Eighteenth Street and Broadway. He lived to become one of the most noted of American pharmacists, and up to the time of his last illness, which commenced about six weeks before his death, he had been very active and gave promise of great longevity. The immediate cause of death was pneumonia. Mr. McIntyre is survived by his wife, four sons, and five daughters. Of the sons, one, Mr. Ewen McIntyre, came over to this country and was apprenticed to the late Mr. John Mackay, Edinburgh. He passed the Minor examination in June 1873, and the Major in January 1875, and he is one of the few American pharmacists who are members of the Pharmaceutical Society of Great Britain.

**MILNE.**—At 58 Broomhill Road, Aberdeen, on January 17, Margaret Lumsden, beloved wife of Mr. Frank Milne, wholesale druggist (W. Davidson, Ltd.).

**REAM.**—At King's Lynn, on January 12, Mrs. Ream, wife of Mr. Alfred Ream, chemist and druggist, formerly in business at Market Rasen and Grantham.

**WILLIAMS.**—At Liverpool, on January 16, Dr. Owen T. Williams, Lecturer on Pharmacology at the University of Liverpool, aged thirty-six. Dr. Williams lectured on cod-liver oil at the evening meeting of the Pharmaceutical Society of Great Britain on December 10, 1912.

## BUSINESS CHANGES.

Notes for this section sent to the Editor should be authenticated, and must not be in the nature of advertisements.

**MR. F. GOULD,** chemist, has recently opened a pharmacy in Crewkerne.

**MESSRS. COLES & HUTT, LTD.**, have opened a business in St. Thomas Street, Weymouth.

**BOOTS, LTD.**, are erecting a block of new business premises at the corner of High Street and Queen's Road, Watford.

**MESSRS. T. HOWARD LLOYD & CO., LTD.**, manufacturing chemists, have removed to Asfordby Street, Leicester.

**MESSRS. EDWARDS, LTD.**, 75 Fore Street, Redruth, have disposed of the chemists' portion of their business to Messrs. Greaves & Co.

**MR. D. L. BAUVERA** has purchased the business of Mr. W. E. Morton, chemist and druggist, 156 Portland Road, South Norwood, London, S.E.

**MR. A. SITTLER** (proprietor of Messrs. J. Méro & Boyveau), essential-oil distiller, Grasse, announces that he has taken his son-in-law, Mr. Henri Bénard, technical chemist, into partnership, and that the style of the firm will remain as hitherto.

**SERVIAN IMPORTS OF PHARMACEUTICAL PRODUCTS.**—The value of pharmaceutical imports rose from 5,396L. in 1910 to 16,892L. in 1911. Germany does most of this trade, her supplies in 1911 amounting in value to 13,450L.; Austria came next with 2,699L., and then France with 588L. The principal imports of heavy chemicals included crude and calcined soda, Glauber's salt, sulphuric acid, copper sulphate, calcium carbide, and acetic acid.

**AMATEUR MATERIA MEDICA.**—“What is the drug ‘Veronal’?” asks the “North Mail” for January 17. The note goes on: “Is it the vegetable alkaloid extracted from the leaves of the common speedwell (*Veronica officinalis*)? This is the plant in whose medical virtues the Welsh have such great faith—the plant that was used by the Emperor Charles V. to cure himself of gout—the plant that has been used as a substitute for China tea.”

## PERSONALITIES.

Notes for this section sent to the Editor should be authenticated, and must not be in the nature of advertisements.

**MR. D. H. PARRY**, pharmacist, Harlech, won a silver bowl at the recent meeting of the Royal St. David's Golf Club.

**MR. JOSEPH ALBRIGHT**, retired chemist, Parkfield Terrace, Lancaster, was ninety-seven years of age on Thursday, January 23.

**MR. GUIDO JUNG**, of Messrs. Fratelli Jung, essential-oil exporters, Palermo, is in London this week, renewing business acquaintances.

**MR. H. MEYNELL**, chemist and druggist, High Street, Tenterden, has been elected secretary and treasurer of the Tenterden Tradesmen's Club.

**MR. THOMAS ARTHUR WHITE, Ph.C.**, Southsea, member of the Council of the Pharmaceutical Society, has just been elected President of the Portsmouth and County Club.

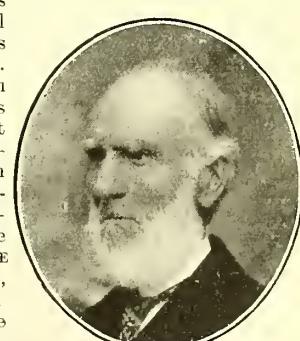
**MR. GEO. HEATON**, pharmacist, Ripley, Derbyshire, has been appointed Chairman of the newly formed Health Committee, which is composed of the whole of the local Urban District Council.

**MR. T. H. W. IDRIS, J.P.**, who is High Sheriff for Merioneth this year, received Mr. Justice Laurance at Dolgelly at the opening of the Assizes on January 24. Afterwards he entertained the Grand Jury at a banquet.

**W. BRO. HAROLD MITCHELL**, chemist and druggist, 56 Woodgrange Road, Forest Gate, London, E., was installed the W.M. of the Byfield Lodge No. 2632 on January 13, when a valuable collar and jewel and a P.M.'s jewel was presented to him in appreciation of his services as W.M.

**MR. JOHN LORIMER**, whose name is indissolubly connected with the chemists' own name speciality trade, and who has recently been travelling in various parts of the British Empire, inserts a New Year's greeting-card in this issue, and invites correspondence from houses who desire to get a share of Canada's booming trade. Mr. Lorimer spends most of the year in Canada, and knows just how to place goods from this country at the doors of purchasers in Canada on dollar terms.

**AN OCTOGENARIAN PHARMACIST.**—Mr. Pattinson Hayton, chemist and druggist, of The Laurels, Proctor's Square, Wigton, is now in his eighty-seventh year, and his interest in pharmacy is as keen as ever it was. When he was eighteen years old he succeeded his father in the business that he had established in Wigton, and he carried it on continuously for forty-eight years, when he retired. He is among the oldest subscribers to THE CHEMIST AND DRUGGIST, and keeps in touch with what is going on in the trade by reading it regularly every week. Mr. Hayton does not profess to have followed any golden rule for longevity, except that he has always been temperate, but never a teetotaler, and he has rigidly stuck to the old Cumberland diet of oatmeal porridge for breakfast every morning. He is hale and hearty, and writes in a firm hand.



MR. HAYTON.

B.P.C.—As we go to press we receive the Research List of the British Pharmaceutical Conference. Copies of the list can be obtained on application to the Hon. General Secretaries, Mr. Horace Finnemore, Guy's Hospital, London, S.E., and Mr. Reginald R. Bennett, University College Hospital, London, W.C.

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## National Health Insurance.

### Dispensing and Drug Arrangements.

Included here are reports of chemists' meetings regarding the dispensing arrangements and terms under Section 15 of the National Insurance Act, together with annotations on matters germane thereto, to which are added reports on how the dispensing arrangements are working.

**Alloa.**—A meeting of the Stirling, Clackmannan, and Kinross Pharmaceutical Association was held in the Y.M.C.A. Rooms, Alloa, on January 15. Members from the different districts met at Larbert Junction, and the journey from Larbert to Alloa was occupied in free discussion of experiences of the green prescription-forms. Most of the members had received one or two before leaving, but as it was early-closing day, and in some districts the doctors had not received their official prescription-forms, the proper start of the system was not expected till the evening, or even Thursday. The great difficulty expressed was how the pricing is to be done, and how doctors are to be kept from using the green form when one of the ingredients is not on the tariff, especially as the medical men have received no list of drugs. The meeting opened at 2 p.m., Mr. R. Gordon-Drummond (Falkirk), the President, occupying the chair. Twenty-six members were present. The following towns were represented: Stirling, Falkirk, Grangemouth, Denny, Larbert, Polmont, Alloa, Alva, Tillicoultry, and Bannockburn. The meeting then discussed the conditions under the tariff, and the following resolutions were adopted, the Secretary (Mr. Ferrier, Grangemouth), Mr. Marshall (Grangemouth), and Mr. Bennie (Polmont) being instructed to forward them to the respective Insurance Committees. The meeting then discussed the dispensing of club prescriptions outside the National Insurance Act, and it was agreed, on the motion of Mr. Robertson (Alva), that the tariff list be regarded as the minimum price to be accepted for such work. The following are the resolutions which were passed by the meeting:

That where no dispensing-fee is chargeable on a prescription a minimum charge of 3d. be made.

That half a drachm and half an ounce be charged at drachm and ounce rate respectively. Smaller quantities at grain or drachm rate as the case may be.

That all bottles, whether containing medicines for internal or external use, be charged against the Insurance Committees.

That a charge of 6d. be made over and above the price of the prescription for medicines supplied between the hours of 8 p.m. and 8 a.m., and on Sundays, holidays, and early-closing days at times when pharmacies are closed.

That a list of drugs where the tariff price is under cost be sent to the respective Insurance Committees in the district covered by the Association.

**Bingley.**—The chemists on the panel have arranged for one pharmacy in turn to be open on the evening of Tuesdays, the early-closing day, for dispensing. On Sundays each chemist will be open from 8 p.m. to 9 p.m.

**Bolton.**—A meeting of the Bolton Pharmacists' Association was held on January 15 to discuss the National Insurance Act. The Secretary was asked to arrange that all the members should be placed on the Lancashire county panel in order to be able to dispense prescriptions brought in from rural areas. The deputation which had met the doctors the previous evening stated that they were amicably received, and that arrangements had been made regarding stock mixtures, private formulae, and the prevention of insured persons obtaining medicines from the doctors' prescription for other persons. Messrs. Fred Brindle, Warburton, and Watkinson were elected members. The question of late fees was deferred pending inquiries as to the likelihood of these being allowed. The hours arranged for Insurance business were 9 a.m. to 8 p.m. each week-day, except Wednesday, 9 to 12 a.m. and 6 to 8 p.m. Sunday was left to each chemist to arrange according to local requirements.

**Caithness.**—With reference to the proposed payment by capitation for drugs and appliances, the chemists and Insurance Committee have agreed after consultation to the capitation-fee for one year from January 15. Mr. Cumming, on behalf of the chemists, submitted the following memorandum, and the clerk of the committee was instructed to communicate its terms to the Commissioners:

To Caithness Insurance Committee: We, the members of the Caithness Pharmacists' Association, beg to protest against the one-mile limit clause being applied to Scotland, and especially to the North of Scotland. We in Caithness depend on the country round about for our living. We have been in the habit of supplying medicines over a radius of at least fifty miles. It is unjust that 50 per cent. of our regular customers should be taken from us and handed over to others. Insurance schemes are based on the principle of spreading the risk over as wide an area and as great a number as possible. If we are only to cater for the few in the

least healthy areas, while the doctors are to cater for the many healthy rural workers, the injustice is accentuated. We submit that the insured over the wide district would not only get their medicines more carefully compounded, but more expeditiously, from the chemists. In a district such as this it would be unreasonable to expect the insured in every instance to come for the medicine. We therefore suggest that a fee of 6d. should be allowed for every parcel not called for, this fee to include container, packing, and delivery, it being left to the chemist to choose the most suitable route.

D. D. CURNIE, President.

ROBERT S. WATERS, Secretary.

The Insurance Committee were thanked by the chemists, through Mr. Cumming, for the opportunity afforded of conferring with the Insurance Committee.

**Cardiganshire.**—The Insurance Committee last week received a deputation of chemists, when the tariff submitted was agreed to. It was also arranged that the price of any drug not included in the list should be fixed by the Committee. Mr. B. Taylor Lloyd suggested an extra charge of 1s. for dispensing a prescription after the fixed business hours, but no decision was arrived at on this point.

**Cheshire.**—It is understood that application is to be made to the Insurance Committee for permission to regard Mottram as a rural area, and to permit medical practitioners to dispense medicines. At present there is no chemist in the district.

**Colwyn Bay.**—A meeting of the West Denbighshire Pharmacists' Association was held at Colwyn Bay on January 16, Mr. Neill (Colwyn Bay) in the chair. There were seven other members present and Mr. D. Llewelyn Jones (Hon. Secretary). The following condition laid down by the Welsh Commissioners was read:

The Commissioners will raise no objection to original drug tariff of Pharmaceutical Standing Committee, provided it is incorporated in an agreement embodying regulation 43 and other relevant regulations. Commissioners cannot approve any additional payment, e.g. night fees, outside the original tariff, or any alteration therein. As to dispensing hours, Commissioners will leave arrangements to local option, provided no extra expense is involved, and that the Committee is assured that drugs can be obtained when urgently required. Commissioners will consider any well-founded complaints three months hence.

It was resolved to send the following resolution to the Welsh Pharmaceutical Standing Committee:

That we urge the Committee to strongly protest against the injustice of the attitude of the Welsh Commissioners in refusing to allow extra remuneration for night service, and that every effort be made to induce the Welsh Commissioners to fall into line with the procedure adopted by the English Commissioners, viz. the granting of extra fees where the demands are reasonable.

A letter from the Welsh Commissioners urging the formation of a local pharmacopœia was read. The letter also suggested that all mixtures should be of 6 oz. (twelve doses), that ordinary water be used, free of cost, except where distilled water is definitely ordered. The following resolution was passed:

That in the unanimous opinion of the West Denbighshire Pharmacists' Association it is not desirable in the best interests of the insured person to frame any local Pharmacopœia as tending to perpetuate some of the pernicious features of contract practice as being contrary to the spirit of the Act, and as being inconsistent with the best traditions of pharmacy.

**Co-operative Pharmacies.**—In some of the less densely populated districts, where there is likelihood of them being classed as rural areas, chemists are clubbing together to establish pharmacies in likely places, so as to be within the mile-limit and thus obviate dispensing by doctors.

**Darwen.**—Chemists on the panel have decided to divide into three sections—North, South, and Central—to dispense on Tuesday evenings and Sunday afternoons. A list of those open on these particular days will be placed in the waiting-rooms attached to surgeries, and hung on the doors of various chemists' shops. The medical men are undertaking the late night dispensing.

**Eastbourne.**—A meeting of the Eastbourne Pharmacists' Association was held at the Queen's Hotel on January 14. Mr. Arthur Mills (President) in the chair. There were also present thirteen members and Mr. D. Marchant (Hon. Secretary). The Secretary gave a brief outline of the various meetings of the Executive and Insurance Committee meetings. The list of medical men and pharmacists on the panel was considered satisfactory, there being thirty-eight doctors and a complete panel of pharmacists and all those entitled to supply medical benefits. By reason of the extra fees which some associations have secured for all dispensing after the ordinary hours of business, it was agreed to ask the local Insurance Committee to grant an extra fee of 3d. between the hours of 8 p.m. and 11 p.m. and an extra 6d. from 11 p.m. to 8 a.m. for week days. On Wednesdays from 1 p.m. to 11 p.m. 3d. extra. Sundays 3d. extra till 11 p.m., with a further request that no prescription be dispensed after hours, except those marked "Urgent."

**Essex.**—At a meeting of the Insurance Committee on January 14, the Chairman (Mr. J. H. Burrows, J.P., C.A.) said he was anxious that the chemists should have considered his request to agree to a flat price per bottle for medicine, pills, etc., leaving on a special list a number of expensive drugs. The present arrangements would entail great expense upon an already too small administration fund. Mr. Holloway, in reference to a suggestion that the chemists had unduly influenced the Committee by saying that the Commissioners had accepted their scheme, explained what had taken place at the conference. He added that many of the chemists were under the impression that they would make little or no profit even on a tariff basis.

**Exeter.**—The Pharmaceutical Insurance Committee appointed by the Exeter Association of Pharmacists met the medical men on the panel at the residence of Mr. T. C. Milton (President of the Pharmacists' Association) on January 20. Messrs. P. F. Rowsell, J. Hinton Lake, H. W. Gadd, J. Harris, and F. W. Vinden (Hon. Secretary), and all the medical men except one, were present. The medical men present agreed to all the suggestions that were put forward, but asked that they might be submitted to them in writing as a permanent record. This the Pharmaceutical Committee agreed to.

**Flint.**—Mr. P. S. Ashfield presided at a meeting of the Flintshire Pharmacists' Association held at Flint on January 16, fifteen other members being present. The following resolutions were passed:

(1) That the Association request the Welsh Pharmaceutical Insurance Committee at once strongly to urge on the Insurance Commissioners of Wales the necessity of approving of a night service fee, also a fee for dispensing after business hours, and a minimum charge for dispensing.

(2) The Association considers that a local Pharmacopoeia would not be necessary, and would be unworkable, as chemists have provided a stock of suitable drugs of the British Pharmacopoeia to meet the requirements of the Act, and such a local Pharmacopoeia would not be to the best interest of the insured person.

(3) That the establishment of the mile limit in rural areas beyond which medical men may dispense for insured persons is a great injustice to the chemists and a contradiction of the original intention of the Act, and the Association suggests that insured persons should in these cases be given the option of having their medicine dispensed either by the medical attendant or a qualified chemist.

**Gateshead.**—Two doctors in Felling have written to the Gateshead Insurance Committee pointing out the difficulty which would arise from both the chemists in that locality not going on the panel. Many insured persons residing on the Gateshead boundary are within a short distance of these pharmacies, and in case of need they will have to walk over a mile to Newcastle. A communication was also received from the executor of a deceased chemist at Wrekenton asking that he should be included on the panel of chemists. Deceased during his illness had failed to make the necessary application for the inclusion of his name. It was decided to make an effort to obtain the consent of the Commissioners to have the panel opened to permit of the inclusion of the above three persons. [The panel is always open for additions.—EDITOR.]

**Glasgow.**—A meeting of the Dumbartonshire Pharmaceutical Committee was held at 180 West Regent Street, Glasgow, on January 15. There was a good attendance of members. The Chairman (Mr. Thos. Guthrie) detailed the steps the officials had taken since last meeting to protect the interests of pharmacists in the county, and said that the principal reason for meeting so soon was to consider a shoal of applications from doctors for dispensing that the Clerk to the County Insurance Committee had received from various parts of the county. Mr. Gilmour explained that the Commissioners are at present preparing a statement to guide the Insurance Committees in the interpretation of the "Rural Clause," that Mr. Hill had been in communication with the County Clerk, and it was hoped an arrangement satisfactory to pharmacists would be arrived at. The meeting then considered the applications from doctors, and the circumstances of each case in detail, and directed that the decisions arrived at should be transmitted to the Standing Committee. A discussion ensued on methods to be followed in pricing Insurance prescriptions and on suggested alterations to the drug-tariff. As, however, both of these questions are likely to be taken up by the parent Association at an early date, the matter was deferred.

**Grimsby.**—A meeting of the Grimsby Pharmacists' Association was held at the Oberon Hotel on January 14, Mr. Corr. Willson (President) in the chair. The Secretary reported on the result of the interview with the doctors' representatives, which was considered to be satisfactory on the whole. The hours for dispensing were fixed as follows:

Ordinary tariff rates, from 8 A.M. to 8.30 P.M.; Thursday, 8 A.M. to 1 P.M., 5 to 6 P.M.; Sundays and Bank holidays, 5 to 6 P.M.; extra fees, from 8 P.M. to 10 P.M., 50 per cent. increase; 10 P.M. to 8 A.M., 100 per cent. increase. All prescriptions to be timed and dated, and any times after 8 P.M. to bear extra fee if dispensed the same night. Anaesthetics and dressings to be used by the doctors on insured persons shall be ordered from the chemist. Plain water to be used unless otherwise specified, or in case of incompatibilities. Pills to be standard 4-gr. coated, unless in special cases. A list of proprietary chemicals and their B.P.C. equivalents be sent to all medical men on the panel. With reference to the low price of belladonna-plaster on the tariff, Mr. Woolcock had written to explain that this would work all right if taken in conjunction with the others. The Secretary mentioned that Mr. H. W. Colley had been elected President of the Chemists' Defence Association.

**Hampshire.**—The official tariff has been adopted. "Urgent" medicines are to be supplied, and for the first three months no extra charge will be made, protection being provided for unreasonable treatment in this respect.

**Harrogate.**—A meeting of the Harrogate Pharmaceutical Association was held on January 17 at the Salisbury Hotel, Mr. Percy Ridge (President) in the chair. A discussion took place regarding dispensing under the National Insurance Act, the chief topic being night and Sunday work. It was decided that every member should keep a record of all night work from 8.15 P.M. to 8 A.M., and of all Sunday work. A committee, consisting of Messrs. Ridge, Pattison, Eynon, Handford, Wood, and Fenn, was elected to meet the Local Medical Committee to discuss points at issue. In order to concentrate the energies and get matters generally into order a Standing Committee on Insurance (for the Association) was elected, the members of it being the President, Secretary, and Messrs. Handford, Eynon, Wood, and Pattison. Mr. Butterfield, of Station Bridge, was elected a member.

**Kirkcaldy.**—The Insurance Committee decided on January 17 to pay chemists 90 per cent. quarterly of the amount of their accounts, the rest being retained for the annual audit.

**Newcastle.**—The Committee has allowed doctors in Scotswood to dispense their own prescriptions, the nearest chemist being one and a-half mile away. The Chairman of the Insurance Committee has announced that chemists have agreed to ensure the dispensing of prescriptions during all ordinary business hours and between 6 P.M. and 8 P.M. on Sundays and holidays.

**Oldham.**—At the meeting of the Oldham Pharmaceutical Association on January 14, referred to on another page, Mr. C. Gartside, a member of the committee which had been formed to confer with the doctors on Insurance dispensing, gave an account of their reception and the arrangements agreed upon. It was settled that the hours of dispensing should be at ordinary times half an hour beyond surgery times; Tuesdays, Sundays, and other holiday times, a rota arrangement to be made whereby one pharmacist will be available in each district from 7 to 8 P.M., each pharmacy to display a notice showing where medicines could be obtained on that particular day in that locality. After Mr. Gartside's report many aspects of Insurance dispensing were discussed.

**Peterborough.**—At a meeting of the Soke of Peterborough Committee it was announced that the Commissioners had not approved of the chemists' terms, the point at issue being extra fees after closing hours. Mr. J. G. Sturton, Ph.C., said any note marked "Urgent" would be attended to, but chemists would stand by their demand, or they would get no half-holiday at all. The Clerk said the matter would not come up again until the chemists' bills were sent in at the end of three months. By that time in all probability the difference would be bridged over.

**Southend.**—A meeting of the South-East Essex Association of Pharmacists was held at Hotel Victoria, Southend-on-Sea, on January 15, the President (Mr. J. H. Heywood, J.P.) in the chair. The National Insurance Act was fully discussed so far as it affects chemists. As the day was the first day of Insurance dispensing, several of the members brought their day's prescriptions to show and to comment upon. As member of the County Insurance Committee, Mr. E. A. Holloway afforded the members details of the work of the committee, and answered questions put to him.

**Southampton.**—A meeting of the Southampton Pharmacists' Association was held on January 15, Mr. W. Bates (President) in the chair. There were thirty-three members present and Mr. F. B. Wride (Hon. Secretary). The hours fixed for Insurance dispensing were 8 A.M. to 8 P.M.; Wednesdays, 8.30 to 1 P.M., and 7 P.M. to 8 P.M. in the evening;

Sundays, 7 p.m. to 8 p.m. It was recommended that the above hours be posted up for public inspection, and that there be no special advertising done by the members of the Association. At a former meeting it had been decided that for the purposes of the National Insurance Act the committee of the Association should be the Pharmaceutical Committee, and the meeting then decided on the names of four members to form a sub-committee—viz., Mr. W. Bates (President), Mr. H. Ferryman (Treasurer), Mr. F. B. Wride (Hon. Secretary), and Mr. W. R. Jones (Boots, Ltd.). The Secretary reported that the leading Friendly Societies and the local Medical Benefit Association had been written to, offering to open negotiations for dispensing for those members who are outside the National Insurance Act. Mr. W. Martin opened a discussion on the drug-tariff in which many members took part. He congratulated the Association on having thirty-four out of thirty-five borough chemists on the panel.

**Staffordshire.**—The Insurance Committee have decided that if the sum available for the supply of drugs and appliances and dispensing for the period ending April 14, 1913, is exceeded, they will support any application from chemists for accounts to be paid in full.

### Dispensing Experiences.

**Bermondsey.**—Dr. A. Salter has explained to a newspaper correspondent the difficulty met with in coping with Insurance work, the crowds of waiting patients (many of whom have ailments neglected for years) being so great that the police have been obliged to regulate the traffic. He adds that the arrangements with regard to dispensing also need attention. Continuing, he says: "I believe thoroughly in leaving this to the druggists, but druggists will not alter their hours of closing, and when a patient has had to be kept waiting until a late hour the requisite medicine cannot be obtained. Chemists will have to open waiting-rooms, like the doctors, if discomforts are to be minimised."

**Birkenhead.**—Chemists are without exception extremely busy. Those adjacent to the shipbuilding works of Cammell, Laird & Co. have had some very heavy dispensing work.

**Blackburn.**—According to the "Manchester Courier," large numbers of insured persons with prescriptions besieged the doors of Blackburn chemists on the night of January 16 (closing day), but in nearly every case these were unable to obtain medicine, the chemists refusing to serve them. The explanation is semi-officially made that the doctors had promised not to hold surgeries on Thursdays and Saturdays, and some of them had forgotten the fact. Arrangements are to be made so that an adequate service will be provided in future. From another correspondent we learn that chemists are having a remarkably busy time from early morning until late in the evening dispensing Insurance prescriptions. One chemist told a correspondent that most insured persons are substituting "the doctor's bottle" for the simple remedies formerly resorted to.

**Camberwell.**—The Guardians have decided that as the repayment to them of the cost of drugs dispensed to the indoor staff under the National Insurance Act would be so small, and the extra work involved is so infinitesimal, no action be taken to claim repayment for the cost of the drugs dispensed.

**Dundee.**—Prescriptions for insured persons seem to be dropping into the various pharmacies in the usual proportions, but no great increase in the number usually dispensed at this season is apparent so far. Most of the chemists are inviting dispensing by window-cards of various kinds. There is still a large demand from the public for application-forms for choosing a doctor. Mr. John Anderson, chemist and druggist, Strathmartin Road, Dundee, giving out 500 copies one day last week.

**Edinburgh.**—Prescriptions are now coming in steadily, but in nothing like alarming numbers; from three to six scripts per diem seem to constitute a fair average, a fair proportion being for people who hitherto have seldom troubled to see a doctor. Mixtures make about 50 per cent. of the total, powders about 40 per cent., and ointments and pills the balance. This is fortunate, because mixtures pay best; and grumbling is heard regarding such prices as 3*½*d. and 4d. for a dozen powders. One of the noticeable features about the new business is that insured persons show a tendency to give their custom to pharmacies near their own homes; there is no inducement to carry prescriptions to the big city establishments. There are fewer callers for "something for the cold"; but the possibilities of ultimately remunerative new business are rapidly gaining recognition. Even pessimists are found who will admit that things will right themselves in time. A local tailor has issued a list of doctors and chemists on the Insurance panel. This makes a good topical advertisement.

**Hull.**—Chemists are having a busy time dispensing prescriptions handed in by insured persons, according to a report of the local "News" of January 16. There are fifty chemists on the panels and eight firms for the supply of drugs and appliances only.

**Liverpool.**—As this city contains a good proportion of working-class people, Insurance prescriptions have been presented at practically every pharmacy in Liverpool. In better-class districts the number of Insurance prescriptions has been comparatively small, but in the middle-class and lower-class neighbourhoods chemists have had some difficulty in coping with the work. In the Sefton Park, Toxteth, and Princes Park districts the majority of the dispensing has been mostly for the grooms, gardeners, and servants generally. In the Scotland Road, Walton, Everton, Low Hill, and other districts adjoining the docks the work has been very heavy indeed. One chemist in Great Homer Street reports fifty "scripts" per diem, one in Scotland Road between fifty and sixty "scripts" per diem, and another in the Brunswick Road district over fifty per diem. It is on record that one chemist stayed up until four o'clock in the morning to straighten his shop after the first four days' rush. The work still keeps on, and the numbers do not seem to decrease, but have steadily increased as the week has advanced. Chemists report that the sale of patent medicines has decreased in proportion as the dispensing has increased. It is understood that the unqualified drug-store proprietors who have got on the panel will be struck off when the list is again issued next quarter. Some of them who are dispensing prescriptions containing no poisons will get a surprise at the end of the first quarter's working, as the local Insurance Committee have made it clear that on no account will they pay unqualified persons for dispensing. Any orders presented for payment as dispensed will be disallowed. The doctors appear to be working harmoniously with the chemists. The feeling seems to be that the former are glad that they have not contracted to supply drugs, as they would never have got through.

**Lothians.**—In the villages and the smaller towns in this area, where formerly the doctors did most of their own dispensing, several chemists report a great increase in prescription work, and the hope is expressed that soon the Commissioners may be able to grant better payment when funds begin to accumulate.

**Manchester.**—The dispensing of medicines for insured persons has now commenced in earnest, writes our correspondent, many chemists in working-class districts making up more prescriptions during the first three days under the Act than they have done for the last two months. Saturday was an exceptionally busy day with several chemists in North Manchester—one had 144 Insurance prescriptions, and another not ten minutes' walk away had eighty-five the same day. These seem to be exceptional cases. Reports from various parts of the city point that pharmacists have been well tested, but everything has gone out in good time. During the week-end some who have been endeavouring to fill in the prices find it not so easy as they thought. The wholesale houses are also feeling the extra rush of business, working overtime being the rule rather than the exception. One of them received orders by the first post on Wednesday for no less than fifteen pill-machines, rounders, eleven mortars and pestles, and three dozen ice-bags, not to mention orders for grosses of bandages.

**Unlisted Appliances.**—A firm of chemists last week received an order (on special pink form, which was not necessary) for two 5-ft. indiarubber bandages (2*½* in.) at 2s. 6d. each. Later the Insurance patient brought another special order, asking that two elastic stockings be supplied "in lieu of the bandages." The point of interest lies in the fact that the bandages are on the list of appliances, but that the stockings are not. The price of the stockings cannot therefore be recovered from the Insurance Committee. Chemists should be careful to recognise the difference between unlisted appliances and drugs which are not on the tariff. In the former case there is no provision made for the payment by Insurance Committees.

### Questions and Answers.

*The following replies to correspondents are grouped here for convenience of classification.*

**J. E. D. (206/44).**—As to TRUSSES, see reply to "P. H. D."

**Bang (203/41).**—PRICING INSURANCE ACT PRESCRIPTIONS.—See the first editorial article in this issue.

**Chemicus (205/44).**—The Insurance dispensing-fee is at present allowed for STOCK MIXTURES. See the Editorial, p. 128.

**A. S. B. (122/29).**—AN INSURANCE PRESCRIPTION for a single article, such as "R/ lin. saponis, 5j.," can only be dispensed by those on the dispensing panel.

*Serio* (206/59).—Most of your queries as to charges are anticipated by our editorial article. For 5 grains of calomel as a single POWDER UNCOMPOUNDED no dispensing-fee is allowed. There is nothing to prevent doctors prescribing SERUM or VACCINE and the chemist supplying it.

*Pills* (197/24).—See reply to "Ricini," January 18, index folio 99. We cannot repeat the same information week by week, and expect that subscribers will make themselves familiar with what we have already stated in regard to Insurance dispensing before they submit queries to us.

*Cash* (196/8).—As you are not a registered chemist you cannot dispense INSURANCE ACT PRESCRIPTIONS, whether they contain scheduled poisons or not; nor does the National Insurance Act enable you to dispense the prescriptions in the doctor's dispensary under his supervision. Read the article in the *C. & D.*, January 11, index folio 49.

*L. L.* (116/10).—INSURANCE PRESCRIPTION-CHARGES will be checked by the local Insurance Committees, probably with the help of the medical and pharmaceutical committees, if no special officer is appointed for the purpose. No medicines can be repeated without a further prescription from the doctor. If "Rep. mist." is used the ingredients of the particular mixture may be written on the form by the dispenser.

*Salol* (195/6).—A PRIVATE LIMITED COMPANY can be formed of any two persons. See the article on the subject in the *C. & D. Diary*, p. 242; after reading it you might communicate with one or other of the *C. & D.* advertisers who undertake registration. A person holding the Apothecaries' Hall Assistants' Certificate is not entitled to dispense under the National Insurance Act without qualified supervision, such as, in the case of companies, the superintendent thereof.

*P. H. D.* (206/24).—(1) Only those SURGICAL APPLIANCES mentioned in the Regulations and in the drug tariff can be supplied by chemists for payment by the Insurance Committee. If the doctor orders such things as trusses, ear-baths, and ear-syringes, chemists should communicate with the prescriber, informing him of the facts. (2) Any MEDICINE NOT ON THE DRUG LIST, whether proprietary or not, has to be prescribed upon the "Special Drugs" form (pink). (3) As to STOCK MIXTURES, see the remarks in our editorial article. (4) ACCOUNTS are to be rendered quarterly on a form to be provided by the local Insurance Committee.

*Scot* (198/16).—THE POISONS REGULATIONS under the Pharmacy Act apply solely to the substances and preparations thereof mentioned in the schedule to the Poisons and Pharmacy Act, 1908. Iodine and tincture of iodine are not in that schedule, consequently it is not necessary, under the National Insurance Act, to dispense tincture of iodine or any other preparation of iodine in a poison-bottle, nor would the Insurance Committee be called upon to pay for a poison-bottle supplied to an insured person for any medicine which is not a scheduled poison, whether the medicine be for external use or not. No doubt an element of danger is involved, especially as it is a departure from the custom of the trade, but there is nothing to prevent you supplying a poison-bottle on the deposit system.

*Largorg* (125/31).—INSURANCE DISPENSING.—(1) A is unregistered, and has a drug-store. He is on the panel for drugs (other than scheduled poisons) and appliances. He has also acted as dispenser for a doctor for over three years prior to December. B is a private company of chemists, with qualified managing director and qualified manager. This business is a mile away from A, who has part share and is a director. Can A accept Insurance scripts at his shop and pass them on to B to be dispensed and charged by B? [We know of nothing to prevent him.] (2) Can A accept the scripts at his shop and dispense them for B? [He may in B's shop, but not in his own.] (3) What is meant by "drugs"? If A has a script for lin. saponis, can he supply? Or is that dispensing medicines? [In our opinion it is dispensing if the order is a medical prescription.] (4) Can A put notice in his shop: "No Insurance dispensing. This is done at our branch, B., Ltd., — Street"? [Yes.]

*Cid* (202/50).—DISPENSER ON PANEL.—In this town there are six doctors who have been opposed to going on the panel until the very last day, when they all gave in their names and joined the panel. One person with a large practice, having kept a dispenser for years, has, much to the surprise of the chemists and other doctors, got his firm's dispenser's name on the panel, his only qualification being that he has passed the Apothecaries' Society examination as dispenser. The address on the panel is the address of the firm who employ him. The firm send all their prescriptions to him, and he has touted for customers among those who have consulted

the other doctors in the town. Is not this a direct evasion of the law, and how can it be stopped? [Yes, it is illegal. The attention of the Insurance Committee should be called to the terms of Section 15 (5, iii), and the Pharmaceutical Society be informed of the circumstances, so that they may take steps against the dispenser for infringement, if any, of the Pharmacy Act.]

*Subscriber* (127/37).—SHOPS ACT AND INSURANCE DISPENSING.—(1) Our correspondent informs us that Wednesday is the half-holiday in his district, and at first the chemists closed rigidly from 1 o'clock, pulling down their blinds, putting out lights, and so on; but recently, and with the Insurance Act dispensing as an excuse, some chemists in the district have kept open and business has been in full swing. Is this right? [No. There are few chemists' shops which are not "mixed" in the sense of the Act, and they must be kept closed on the appointed half-holiday for the sale of all goods that are not specially exempted by the Shops Act. For the purpose of Insurance Act dispensing a qualified person may remain on the premises under the conditions mentioned in the Shops Act and Regulations (see *C. & D. Diary*, pp. 227-8). Notices have to be exhibited in accordance with the Act.] (2) Our correspondent adds that it seems to him that the Insurance Act interferes somewhat with the intentions of the Shops Act. To this we reply that one of the fundamental principles of the Shops Act is to ensure that the dispensing of medical prescriptions will not be interfered with by the provisions of the Act, and safeguards to secure this were included in the statute. (3) Any qualified assistant, including the superintendents or managers of limited companies, may be employed on the early-closing day, provided that, if entitled under the Act to a half-holiday he gets that half-holiday on another day.

### Insurance Dispensing.

*A Suburban Chemist's Diary of the First Day.*

7 A.M.—Wakened by commotion in street. Head out of window reveals group round door. One policeman, one postman, two working-men, and a boy. Bell clangs below stairs. Shout excitedly to my partner, "Here's the Insured Person," descend in *négligé* attire. Voice from above, "Dispensing-fee tuppence, poison-bottles charged to Insurance Committee, and the tariff is in the drawer with the pill-machine." Open door and find boy is trying to get morning paper through letter-box and can't. Policeman is amused spectator, two working-men are waiting to enter builder's yard next door, postman only sorting letters.

8.45 A.M. (should be 8.30).—Junior arrives with the breathless query, "Any Insurance prescriptions yet, sir?"

9 A.M.—Fifty 6-oz. bottles and 100 slip labels placed on counter ready for the rush.

11 A.M.—Lady customer, catching sight of *C. & D.* card hanging in shop, sympathetically hopes that the Act won't make any difference!

12 noon.—Hopes rise to fever heat as a man enters with pale green paper. He has come to present monthly bill for window-cleaning.

2 P.M.—We have another look at cupboard containing Insurance appliances and refill distilled-water bottle.

4 P.M.—Man comes to tell us he wants to inspect panel; find his remarks refer to damaged bedroom-door.

6 P.M.—Errand-boy reports girl with one pink and one green paper just entered neighbouring pharmacy. Excitement continues till same girl visits us and asks us to buy either a shilling or a sixpenny ticket for local concert.

7 P.M.—Pay charwoman's wages, lick her Insurance stamp, and send her home.

8 P.M.—Junior surreptitiously removes twenty-five 6-oz. bottles from dispensing-counter.

9 P.M.—Boldly remove remaining twenty-five and pack away slip labels.

10 P.M.—Shut the shop, and vow to vote Tory next election!

### BRITISH MEDICAL ASSOCIATION PLEDGE.

A meeting of representatives of divisions of this Association in Great Britain was held at the Connaught Rooms, Great Queen Street, London, on Friday and Saturday of last week, Mr. T. Jenner Verrall in the chair. The meeting had been called on the petition of eight divisions in various parts of England and Scotland to consider the desirability of releasing members of the profession from the undertaking and pledge that they had given in connection with medical benefit under the National Insurance Act, and to consider the situation created by the attitude of the Government towards the decisions of the representative body. On Saturday, by 215 against 35 votes, the meeting passed the following resolution: "That this

representative meeting, recognising the force of present circumstances and consulting the best interests of the Association and the unity of the profession, now releases all practitioners from their pledge." After this was passed other resolutions were come to, the most important being one which will regard as conduct detrimental to the honour and interests of the medical profession, any acceptance of service outside the practitioner's own district, parish, or town, which involves a change of residence for the express purpose of accepting service.

#### DOCTORS AS TRADERS.

The "Medical Press and Circular" refers to the formation of a Doctors' Company at Reading as an example of self-protection, and says :

Self-protection being a necessity, the Reading example is worthy of careful consideration throughout the medical profession. At the same time so carefully has the tradition against trade been preserved that we doubt if it would not be illegal for many medical men to join such a body. Graduates of medicine in Edinburgh University, for instance, and Fellows or members of the Royal College of Physicians of London would be prohibited from joining, if we mistake not, by the condition of their qualification. A similar remark no doubt applies to many other qualifying corporations.

#### NOTES AND FORMULAS.

We annex a reduced facsimile of the title-page of the leaflet which we are now supplying to subscribers for distribution to Insurance Act prescribers. It

#### INSURANCE DRUG TARIFF.

#### Notes and Formulas

of

#### Non-Pharmacopœial Medicines

contained therein.

For the use of  
Prescribers and Dispensers

PUBLISHED AT  
THE OFFICES OF THE "CHEMIST & DRUGGIST,"  
2 CANNON STREET, LONDON, E.C.

comprises the formulas of the preparations to which the letters "B.P.C." are attached in the official drug tariff. The formulas printed in our issue of January 18 have been carefully revised and compared with the originals, which are also given, as many prescribers know them well under the original names. The compilation should be of service both to prescribers and dispensers, and is of the size suitable for pasting in the British Pharmacopœia. We supply the leaflets at 6d. per dozen post free.

#### PRICING CARD.

There is no more difficult work for Insurance dispensers than the pricing of the prescriptions. This we simplify by means of the pricing table on p. 131 of this issue. We propose to print this table on a card with instructions on the back of it, and we expect to have the cards ready for distribution by Wednesday, January 29. The cards will be supplied at 6d. each, or 7d. post free, or 5s. 6d. per dozen post free. We prefer to supply in quantities, and suggest that secretaries of local associations should get supplies for all the members. Special quotations will be given for parcels of fifty and 100. Applications should be addressed to the Book Department, C. & D., 42 Cannon Street, London, E.C.

#### NOTES.

The "Daily Herald" gives prominence in its issue of January 8 to the contemptuous conduct of a chemist. It is that when an Insurance prescription was presented ten minutes before closing time on the weekly half-holiday, the pharmacist, after examining it, asked the bearer "to come again next morning, as he was closing at one o'clock, and 'had no time' to make it up."

The National Health Insurance Commission (England) has issued a circular (A.S. 78) explaining points in regard to : (1) Maternity benefit (payments to doctor); (2) the method of reckoning payments by low-wage earners under twenty-one; and (3) the payment of benefit in cases where the first quarter's contribution card has not been surrendered to a society.

The following notice appears in the windows of most London chemists, according to the "Westminster Gazette" :

"National Insurance Act.—Prescriptions under the above Act dispensed at this establishment accurately and promptly with best drugs only. Strict attention given to doctors' instructions."

That is a clear enough informal notice, but it is not the statutory one. Any chemist who requires additional copies of the prescribed notice can obtain them from the C. & D. offices at the published prices.

## Ideas on Insurance Dispensing

*The Editor pays for contributions to this column, especially for ideas which have been found beneficial or useful in working the chemists' part of the Insurance Medical Benefit, and in solving difficulties which arise in connection with it.*

#### Learn from Institutions.

To make the new "side-line" run profitably and smoothly, a large percentage of pharmacists will have to sink 50 per cent. of their imaginable dispensing pride. Abbreviated prescription-writing must be tolerated in its most acute form, but should not mean inaccuracy or slovenliness. The first-class dispenser can learn much from our hospitals and institutes, the dispensers being past masters in the knowledge of stock mixtures and quick and accurate dispensing. The chemists who will profit by Insurance dispensing are those who will remember that the insured person expects every courtesy, every immediate attention. This will lead to other business, and surpass all window announcements.—W. Lloyd Smith (Dispenser, The Medical Institute, Rugby).

#### Helping Insured Persons.

There is bound to be a certain amount of uncertainty in the insured person's mind as to the actual scope and procedure in obtaining the medical benefits under the National Insurance Act. A series of inexpensive posters, showcards, and leaflets explaining the little points that might worry the patient cannot fail to impress him with the fact that you are capable of advising him. In a "family" business especially, it is that little bit of friendly advice "thrown in" that adds so enormously to your "personality" and "holding power" over your customers. Points that could be explained are

All drugs and appliances ordered on the official ticket by your doctor are delivered to you free of all cost.

The prescription or order must be left with your chemist.

Repetition of medicine.

Charge for medicine-bottles, etc.

J. Barker (Evington Road, Leicester).

#### A Handbill.

Subjoined is the text of a handbill, 3,000 of which were distributed to workers during the dinner-hour on January 15. It was printed on pale azure paper, 8 in. by 5 in., in well-displayed type:

I. Alexander Profeit Wallace, pharmacist, 96 Victoria Road, Torry, Aberdeen, having arranged with the Insurance Commissioners to supply medicines, etc., to insured persons, do hereby pledge myself to supply those medicines, etc., of my usual high standard of purity and excellence.

Mr. Lloyd George said :

"It is the doctor's duty to prescribe,  
and the chemist's duty to dispense."

¶ All insured persons have free choice of chemist or pharmacist, and medicines are supplied free of charge.

¶ Bring your prescription here, it will have my personal attention.

¶ I have a reputation for supplying the best drugs.

¶ That the medical profession and my patrons appreciate this is evidenced by my steadily increasing business.

N.B.—The Government have become fully alive to the risks the public run by indiscriminate dispensing, and have made it clear that only qualified pharmacists shall be allowed to dispense prescriptions under the National Insurance Act.

ALEXANDER P. WALLACE, pharmacist and chemist,  
96 Victoria Road, Torry, Aberdeen.

**MEXICAN GLYCERIN.**—The Acting British Vice-Consul at Mazatlan reports that the proprietors of a soap-factory in that town are completing the erection of a glycerin plant capable of producing an output of 2,600 tons per annum of soap lyes; the firm expect shortly to be producing 80 per cent. crude glycerin.

## WESTMINSTER WISDOM.

The Week in Parliament.

### PATENTS AND DESIGNS ACT.

The Government is credited with the intention of amending the Patents and Designs Act of 1907 in view of the fact that the provision for revoking patents for non-working in this country has not proved so beneficial as was anticipated.

### HIGHLANDS AND ISLANDS MEDICAL SERVICE.

The Secretary to the Treasury informed Mr. F. Whyte, M.P., in the House of Commons on Monday, January 20, that the report of this Committee is receiving the necessary careful consideration of his department, but that at present he is not in a position to make any statement in regard to the matter.

### TRADESMEN ON JURIES.

The Home Secretary's attention is being again called on Thursday to the growing discontent among busy tradesmen and others who are summoned to serve on juries. The whole question (adds our Parliamentary representative) has quite recently been investigated by a Home Office Committee, presided over by Lord Mersey, but the report has not yet been presented.

### REGISTRATION OF TRADE-MARKS ABROAD.

The Association of Chambers of Commerce of the United Kingdom has received an assurance from Sir E. Grey that their resolution urging the necessity of establishing as a universal law that "first public user" shall be the fundamental condition of ownership of trade-marks shall be brought up for discussion at the next International Conference for the protection of industrial property.

### BRITISH CONSULAR SERVICE.

There is reason to believe that Sir Edward Grey is using his best endeavours to secure an improvement of the British Consular Service to meet the views so frequently expressed by the Association of Chambers of Commerce of the United Kingdom on behalf of the trading community. It is understood that the Foreign Office is making application to the Treasury for an increased grant to give effect to the object in view.

### THE MEDICAL ACTS AMENDMENT BILL.

Mr. Handel Booth, M.P., has given notice of his intention to move after the second reading of this Bill that it be an instruction to the Committee

To insert provisions for altering and reconstructing the basis of election to the General Medical Council and for the removal from such Council of the representatives of the Royal College of Surgeons of England, the Royal College of Surgeons of London, the Society of Apothecaries of London, the Royal Colleges of Physicians and of Surgeons, Edinburgh, the Royal College of Physicians and Surgeons, Glasgow (!), the Royal Colleges of Physicians and of Surgeons of Ireland, the Apothecaries' Hall, Ireland, as being licensing medical corporations who have used their influence to prevent members of the medical profession from carrying out the provisions of a statute of the realm.

### INTERNATIONAL OPIUM CONVENTION.

Sir E. Grey informed Dr. Chapple in the House of Commons on Tuesday that, in addition to the Powers whose plenipotentiaries originally signed the International Opium Convention at the Hague, the Government has signed on behalf of Canada, Newfoundland, New Zealand, and twenty-five British Colonies, dependencies, and protectorates. According to latest advices received by the Government the Convention had also been signed by fifteen of the States mentioned in Article 22. H.M. Government expect shortly to learn from the Netherlands Government how many, if any, of the balance of eighteen have signed the instrument down to the end of December.

### NESTLÉ'S EMPLOYEES.

Replying to Mr. Charles Duncan on Monday as to the wages and hours worked by the employees of the Nestlé and Anglo-Swiss Condensed Milk Co., Dr. Macnamara said that the Admiralty contract is carried out at the

Staverton Works only, and there is no complaint of the wages and hours at those works.

### NATIONAL INSURANCE ACT.

Numerous questions have been put and answered since our last issue in regard to the medical panels. As to doctors' dispensers, Mr. G. A. Touche, M.P., has postponed until Monday next his questions to the Secretary of the Treasury in reference to the position of dispensers and chemists under the Act. The hon. gentleman proposes to ask as to the position of doctors' dispensers who have dispensed for many years, but had ceased to be doctors' dispensers, and were running drug-stores for a period of years prior to the passing of the Act, and whether they are debarred from dispensing in future unless they have a registered chemist on the premises. Mr. Touche also proposes to ask for information as to the position of a man of many years' practical experience but an unregistered chemist who has dispensed for public institutions and doctors, but who was not a doctor's dispenser or an Institution dispenser during the three years mentioned in section 15 of the Act, but was for that period dispensing doctors' prescriptions behind a chemist's counter, and whether, under the circumstances, he is debarred from dispensing insurance medical prescriptions under the Act. The Chancellor will also be asked at the same time whether he is aware that hundreds of capable dispensers and chemists, many of whom have served apprenticeships to registered chemists and who know no other calling, have reason to fear that they are disqualified under the Act, and whether he will state what steps he proposes to take to secure them this right.

### CHEAP DRUGS AND BANDAGES.

In the House of Commons on Thursday (after we had gone to press) the attention of the Chancellor of the Exchequer was being called by the Marquess of Tullibardine, M.P., to the fact that in Scotland a special cheap line of drugs and bandages is being manufactured wholesale for the use of retail chemists on the Insurance Act panel, and that chemists are compelled to stock goods much inferior to those which they have been accustomed in the past to deal in. Mr. Lloyd George was asked whether he will give directions that thoroughly good materials only will be used.

At the same sitting, Mr. Newton asked the Chancellor whether he is aware that the only name on the panel of chemists for Dovercourt when the Act came into operation was the name of a gentleman who is not a chemist; whether steps have been taken to remove the name; by whose authority was it put on the panel; whether the inclusion on the panel of persons unable and unwilling to dispense is liable to be a source of danger to the public health, and by reason of the consequent delay in procuring the necessary drugs may be fraught with peril; and what steps he proposes to take to save insured persons the worry and risk attendant upon taking their prescriptions to persons not in a position to dispense.

## TRADE-MARKS.

(From the "Trade-marks Journal," January 15, 1913.)

"RAYDEX"; for photographic chemicals (1) and for photographic papers (39). By S. Manners and J. P. Nash, 71 Lavender Hill, London, S.W. 346,482/3.

"MYKANTIN"; for goods (1) and chemicals (2 and 3). By Meister, Lucius & Brüning, Hoechst a/Main. 347,761/2/3. Device of animals' heads in circle with word "SALVET"; for verminifuges, etc. (2). By S. R. Feil Co., 5912 Central Avenue, Cleveland, U.S.A. 343,643.

"XYLOPOL"; for goods (2). By The Bayer Co., Ltd., 20 Booth Street, Manchester. 346,800.

"KARSOTE"; for medicinal chemicals (3). By E. Griffiths Hughes (Karswood), Ltd., 68 Deansgate Arcade, Manchester. 347,705.

"INFUNDIBULIN"; for medicinal chemicals (3). By Burroughs Wellcome & Co., Snow Hill Buildings, London, E.C. 347,756.

"HEXALETIS"; for medicinal chemicals (3). By J. D. Riedel & Co., Riedelstrasse, Britz, near Berlin. 346,891.

# PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.

## NORTH BRITISH BRANCH.

THE second evening meeting of the session of the North British Branch of the Pharmaceutical Society was held at 36 York Place, Edinburgh, on January 15, Mr. J. P. Gilmour, Chairman of the Executive, presiding. After wishing the members a happy and prosperous New Year, he called upon Mr. D. B. Dott to read the first communication, which was on

### ZINC AND MERCURY CYANIDE.

Reference was first made to the early work of Professor V. R. Dunstan on the composition of mercuric zinc cyanide introduced as an antiseptic by the late Lord Lister. Mr. Dott's paper at the British Pharmaceutical Conference 1905 (*C. & D.*, July 29, 1905, p. 227) was also recalled, in which he found that the highest percentage of  $\text{Hg}(\text{CN})_2$  obtained in the air-dry substance was 29.3, and 20 per cent. standard was tentatively suggested. As he had lately looked into this matter again, he wished to emphasise the fact that according to a fair understanding of the published formula for preparing Lister's cyanide the composition of the product does not accord with either of the formulae given by Dunstan, the mercury invariably falling short of the percentage required. He did not deny that a mixture may be prepared, containing 35 per cent. by some modification of the process, but that the recognised formula followed according to an ordinary practical meaning of the terms ever yields so high a percentage is contrary to experience. In estimating the mercury the most natural plan is to dissolve in dilute hydrochloric acid, warm on the water-bath, and precipitate with sulphuretted hydrogen, which, with certain precautions, gives a fairly correct result. The other method, which is probably the most exact, is to reduce the compound to the metallic condition by warming with hydrochloric acid and excess of hypophosphorous acid. Experiments were made which Mr. Dott said practically confirm his older observations, and show that it is not reasonable to expect more than 25.28 per cent. of mercuric cyanide in the precipitate prepared by Lister's formula. A high percentage is obtained by some modification of the method.

### DISCUSSION.

Mr. MERSON said he had suspected that the discrepancies found were explicable in the manner indicated by Mr. Dott, and now he did not doubt at all that the communication explained the discrepancies.

Mr. RUTHERFORD HILL said the communication was of value in this respect, that, while a research chemist working in his laboratory might reach a certain result, this required to be tested on the manufacturing scale. There is always a danger that a purely laboratory experiment may lead to the fixing of a standard which could not be attained in practice. He thought that the standard adopted should be the one ascertained from the point of view of the manufacturer.

The next communication by Mr. Dott was a

### NOTE ON MORPHINE-NARCOTINE MECONATE.

The salt is prepared by dissolving morphine, narcotine and meconic acid in equi-molecular proportions in alcohol, and adding ether to cause separation. The precipitated substance so obtained is soluble in cold water. A mixture of the alkaloids and acid in molecular proportions, in powder form, is not perfectly soluble in cold water. The solubility of the salt in the first case seems to depend upon the alkaloidal salt taking up extra alkaloid as if a kind of basic salt were formed, far more than would be taken up by the same volume of water. Mr. Dott added that although the salt varies from the composition it is supposed to possess, from the medicinal point of view, there is not a serious difference between the two. Mr. Dott's third communication was in regard to the

### MELTING POINT OF ETHYLMORPHINE.

He pointed out that Mr. G. L. Schaefer, in the "American Journal of Pharmacy," states that neither ethylmorphine nor its hydrochloride has a definite melting

point. Mr. Dott agreed that a well-defined melting-point is not obtained even with the purified and carefully dried base, and he pointed out that this is on account of the ready decomposition of the substance on heating. The temperature 124°C. usually given is too high for the fully hydrated salt and too low for the salt dried at 115°C. When some of the re-crystallised hydrochloride was dried at 120°-125°C. it did not melt till the temperature was about 170°C. It would perhaps be more correct to say that its products of decomposition melt at about that temperature.

### DISCUSSION.

Mr. A. CURRIE said a sample of ethylmorphine hydrochloride he had had was slightly coloured, and gave a solution having a brownish tint. It seemed to have an irritant effect in use. This result might be due to decomposition of the salt on keeping.

Mr. RUTHERFORD HILL said he had had the same experience.

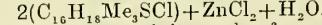
Mr. DOTT, in reply, said ethylmorphine hydrochloride is not liable, in his experience, to much darkening, though that is common with some alkaloids.

Mr. Dott was thanked for his communications.

Mr. T. Wilson next contributed a paper on

### METHYLENE BLUE IN PRESCRIPTIONS.

He said methylene blue occurs in prescriptions as a therapeutic agent, generally in pill form and as a colouring matter. In the latter case, when methylene blue is ordered as a warning colour for mercury perchloride solutions, a flocculent precipitate forms in certain conditions, which settles to the bottom on standing. He thought it was a case of "salting-out," but another uncertain element is the variation in the methylene blue on the market. It appears in two forms: (1) as a chloride of tetramethyl-thionone,  $\text{C}_{16}\text{H}_{18}\text{Me}_3\text{SCl}$ ; and (2) as a double salt; the above chloride with zinc chloride



The fact that a precipitate is formed with mercury perchloride made it necessary to search for a more suitable colour, and after examining five different aniline dyes the author found that night blue and patent blue are the most suitable blue colouring agents for strong solutions of mercury perchloride.

Night blue and patent blue A. are derivatives of triphenylmethane, the mother substance of a large number of important dyes. Night blue is so called on account of the fact that it is a perfect blue both in artificial and natural light. It comes into the market as a chloride or phosphate. Patent blue A. is a calcium salt of sulphonic acid. The price of these two dyes is only half that of other blues, frequently recommended as colouring agents for corrosive sublimate solutions.

### DISCUSSION.

Mr. DOTT said there are several methyl blues in commerce, and he thought it not unlikely that at one time mistakes might have been made in supplying these instead of methylene blue.

Mr. BOA said these perchloride solutions are not so frequently used now as at one time, the modern method being rather to have the salt in the tablet form. He had frequently had complaints from those who used these tablets that they caused staining of the hand which is very difficult to remove. He had made various experiments but still had the same complaint, which is apparently due to specks of the colouring-matter not dissolving and developing a stain on the hand.

Mr. MERSON, Mr. GLASS, and Mr. RUTHERFORD HILL also spoke.

A vote of thanks was given to Mr. Wilson, the CHAIRMAN remarking that he objected to the use of highly-coloured poison-bottles. The clear bottles are much to be preferred. As to the choice of colours recommended by Mr. Wilson, he thought patent blue is to be preferred to night blue, as it is a finer colour.

### NEW ERA IN PHARMACY.

The Chairman referred to the fact that the Medical Benefit part of the National Insurance Act had that day come into operation, which marked a new era in British pharmacy. Some take a pessimistic and others an optimistic view of the new system, but his personal opinion was that in the long run it would be good for pharmacy.

## WINTER SESSION.

Reporters, and Secretaries of Associations whose meetings are not open to reporters, are requested to send their reports to the Editor not later than the Wednesday following the meeting.

**Belfast.**—A meeting of the committee of the Chemists' and Druggists' Society of Ireland was held at the Rooms, 11 Waring Street, Belfast, on January 15, the President (Mr. John Frackleton) in the chair. Mr. W. J. Rankin, the Secretary, read a letter from the Town Clerk in reply to a communication from the Society, drawing attention to the fact that a number of chemists' and druggists' shops remain open on the half-holiday notwithstanding the closing order of the Corporation. The Town Clerk wrote:

I have to say that under the order made by the Corporation the shops are on the same basis as mixed shops, in which some articles exempted by the Act are sold. On the weekly half-holiday notices similar to that enclosed, showing the articles for the sale of which the shop is open, must be exhibited.

The Secretary was directed to forward a further communication to the Town Clerk on the subject. It was decided to hold the annual meeting on February 26.

**Bournemouth.**—The monthly meeting of the Bournemouth Pharmaceutical Association was held at Gervis Hall Restaurant on January 17. Mr. Bingham was in the chair, and there were twenty-five members present and Mr. C. T. Reid (Hon. Secretary).

**Chemists' Union.**—We have received a fuller report of the meeting of the Liverpool Chemists' Association held on Wednesday of last week, and reported in our Coloured Supplement of January 18, at which Mr. L. Moreton Parry described his scheme for the formation of a Chemists' Trade Union. We give a digest of the discussion, introduced by the Chairman (Mr. Last) in a commendatory speech. Mr. McKinley wanted to know what the "benefits" would be, and moved that the matter be left alone and give the Pharmaceutical Society a chance, as it had begun to show signs of justifying its existence. This motion was ruled out of order. Mr. Fawcett (New Ferry) did not agree with Mr. McKinley, and proposed that the meeting accept Mr. Parry's scheme. Mr. W. F. Laycock thought the scheme ought to be issued in pamphlet form, so as to give chemists time to digest it before deciding to form the Union. Mr. Cook (Hoylake) was in sympathy, and supported the formation of the Union, because he considered it was not in opposition to the Pharmaceutical Society. Mr. H. Lomax suggested that the Union might be called the "National Society of Pharmacists." Mr. Harold Wyatt said there were times when he had not been able to see eye to eye with the speaker, but on this occasion he thought and believed that this was an honest attempt to do what the Pharmaceutical Society could not do. The scheme was certainly a big thing, and he thought it best that the Union should be formed. Recently the Pharmaceutical Society had wakened up, and had certainly worked more for the benefit of the chemists, but had found its limitations. There had been a great awakening, and this was the first time in the Society's history that it had bestirred itself to such an extent to do something for the "craft" it represented. He thought the Pharmaceutical Society could look after the "legal" side, while the Union could look after the "trade" side of pharmacy. He commended the scheme as a whole, but he would cease to be a member of the Union immediately it became antagonistic to the Pharmaceutical Society. He did not think a trade union would strike a low level in pharmacy, but would tend to pull pharmacy up. Mr. Parry, having answered the various points raised, moved that the whole of the members who joined that afternoon should form a Provisional Committee. Officers and an executive were appointed, as reported last week.

**Edinburgh Assistants.**—A meeting of the Edinburgh Chemists', Assistants', and Apprentices' Association on January 15 took the form of a visit to the Edinburgh Central Fire Station. About forty members were present. The company were first shown over the telephone arrangements and system of electric alarm-bells, an interesting feature being that the horses themselves turn out on being called by an electric bell.

**Hull.**—Mr. T. Smith (President) presided at the annual meeting of the Hull Pharmacists' Association held on January 16 at the Grosvenor Hotel. There was a large attendance. The annual report expressed satisfaction with the new era in the history of pharmacy which has been brought about in the past year. Gratification was also noted at the appointment of Mr. Richardson as the representative of pharmacists on the Insurance Committee. The report was adopted. The Treasurer reported a balance in hand of 2*l.* 18*s.* 1*d.*, a deposit at the bank of 9*l.* 12*s.* 10*d.*, and balance from smoking-concert of 2*l.* 1*s.* 3*d.* This report was

also approved. The officers of the year were then elected: President, Mr. Smith (re-elected); Vice-Presidents, Messrs. Jones, Robson, and Snowden; Hon. Secretary, Mr. Staning; Treasurer, Mr. Robinson; Committee, Messrs. Richardson, Wharton, and Chapman, Messrs. Richardson, Stoakes, and Hoyles (ex-officio); Spilman, Robson, Robinson, Jones; Special Committee for Insurance Act Purposes, President, Secretary, and Messrs. Robinson, Stoakes, Earle, and Jones. Mr. Wharton for his services as Assistant Secretary during the year was accorded a vote of thanks. The following new members were elected: Mr. Charles Brameld, Holderness Road, and Mr. W. Lamplugh (Messrs. Taylor's Drug-stores, Market Place). A discussion then took place regarding a suggestion by Mr. Morrow that a federation should be formed of the chemists' associations in the district. It was resolved that steps be taken to bring about a federation as suggested.—Prior to the annual meeting a general meeting of the trade was held to receive the report of the deputation appointed to wait upon the Medical Sub-committee of the Insurance Committee as to dispensing under the National Insurance Act.

**Manchester Assistants.**—A meeting of the Chemists' Assistants' Association of Manchester, Salford, and District was held on January 15 at the Clarion Café, when a lecture, entitled *Food and its Relation to the Body*, was given by Mr. B. G. Hough, F.C.S. Mr. Hough dealt with the subject of dietaries, their composition and food-values, and the object and effect of cooking and its influence on digestion, giving an interesting account of the subject, including something of the history and development of cooking from primitive times. A discussion followed.

**North London.**—The first afternoon meeting of the New Year was held at Northampton House, Highbury, London, N., on January 16, Mr. J. Noble in the chair. A chat took place on Insurance dispensing, over a hundred prescriptions having already been presented by insured persons to those present. The election of new members brought up the total to 212. Mr. Hearle (Finsbury) afterwards gave a paper on "Is the Rexall Method Truly Co-operative?" A discussion followed.

**Oldham.**—A meeting of the Oldham Pharmaceutical Association was held on January 14, nearly every local pharmacist being present. The chair was occupied by the President (Mr. E. H. Holden). A lecture was given by Mr. Wm. Cocks, M.P.S., on *Synthetic Perfumes*. An account was given in a very interesting manner of the more popular ones, viz.: vanillin, coumarin, heliotropin, ionone, terpineol, musk, neroli, and rose. The histories of some were related, and their chemical composition given, the methods of preparation of a few being also described. The striking changes which came about in the odour of the blended perfumes on maturing were mentioned, and the destructive effect of light on the odour of heliotropin. In opening the discussion, the President regretted that Insurance business compelled curtailment of the discussion. Mr. W. Buckley raised the question of stability of synthetic substances, and another point mentioned was the effect of acid, acet, dil. on terpinehydrate. Mr. Cocks' reply was that, if prepared with proper care, the perfumes are as stable as the natural perfumes; also that acid, acet increases the solubility of terpine hydrate, but does not cause any change unless heat is applied. A vote of thanks was accorded the lecturer, to which he suitably replied. Messrs. J. Beale, H. Thompson, and J. Clayton were elected members. (See also p. 113.)

**St. Albans.**—A meeting was held in St. Albans on January 16, called by Mr. E. H. Fisher (local Secretary for the Pharmaceutical Society), to consider a proposal to form a pharmacists' association for the St. Albans division of Hertfordshire. Representatives of the pharmacists of St. Albans, Barnet, and Harpenden were present. It was agreed to form an association to be called the St. Albans and Barnet Pharmacists' Association, meetings to be held alternately at St. Albans and Barnet. Mr. E. H. Fisher was elected President, Mr. P. H. Warren Hon. Secretary, with Messrs. Sambrook and Roffey (Barnet), Mr. Stevenson (Harpenden), and Mr. Wheatley (St. Albans) as a Committee. Messrs. Sambrook and Stevenson were elected to represent the Association on the Committee of the Herts County Pharmacists' Association. The meeting then discussed the drug tariff and the question of late fees for dispensing.

**Women-Pharmacists.**—A meeting of the Association of Women-Pharmacists was held at Gordon House, Gordon Square, London, W.C., on January 16, Miss Buchanan in the chair. Miss Bolton gave a paper on "The Folklore and Superstitions of Yorkshire, Especially as Related to the Art of Healing." The lecturer referred to the virtue attaching to holy wells, toads and frogs, medicines prepared by virgins, and herbs obtained from graves and by the waning moon. Other facts of interest were also mentioned.

## The C. & D. Diary Competition.

WE have had an unusually large increase in the number taking part in our *Diary* Competition for 1913, and the work of adjudication on this account has been somewhat more onerous than usual. The questions which we propounded were as follows :

- (1) Vote for your favourite business house amongst those mentioned in the index to advertisements, pp. 171-174.
- (2) Name another favourite business house whose name does not appear therein.
- (3) Mention the advertisement in the *Diary* which you think should be most profitable to you.
- (4) Which house advertises in the most artistic manner in the *Diary*?
- (5) What speciality advertised in the *Diary* do you find most popular?

On this occasion we deal with Card 1, and with Home results only. We find that the

FAVOURITE BUSINESS HOUSE ADVERTISING is Allen & Hanburys, Ltd. (pp. 161-170), whose splendid series of announcements on pp. 161-170, showing their packed goods, toilet preparations, and toilet-soaps, earn for them the premier position. The second choice of our readers falls upon Burroughs Wellcome & Co. (pp. 143-149), who present their products in their own inimitable way. May, Roberts & Co., as newcomers in the *Diary*, have quickly found their bearings in the third place, their two pages (44-45) having attracted general notice. Fourthly are placed Evans Sons Lescher & Webb, Ltd., The British Drug Houses, Ltd., and Ucal, these being practically a dead-heat. Next are placed Maw, Sanger, and Wright, Layman & Umney, Ltd., and an almost equal number of votes is given to Parke, Davis & Co., F. Newbery & Sons, Ltd., Baiss Bros. & Stevenson, Ltd., Southall Bros. & Barclay, Ltd., R. J. Reuter, Harker, Stagg & Morgan, Ltd., Potter & Clarke, Ltd., Standard Tablet and Pill Co., Ltd., W. Martindale, J. Woolley, Sons & Co., Ltd., Raimes & Co., Ltd., and Ayrton, Saunders & Co., Ltd.

### FAVOURITE BUSINESS HOUSE NOT ADVERTISING.

This brought many diverse answers, the choice having fallen upon Butler & Crispe, but Vinolia and Meggeson are good seconds. Next come Bleasdale & Co., Ltd., A. Wulffing & Co., Kodak, Zenobia and Grossmith. Other advertisements which are missed include : R. Gibson & Sons, United Drug Co., Cupal, Blyton, Astley & Co., Hall, Forster & Co., Lorimer, Marshall, Ltd., Meister, Lucius & Brüning, P. Beirsdorf & Co., Dinneford & Co., A. Wander, May & Baker, Ltd., Ilford, L. T. Piver, Bruce, Green & Co., National Cash Register, J. Gosnell, Price's Patent Candle Co., Crown Perfumery Co., etc.

### MOST PROFITABLE ADVERTISEMENT.

Pride of place is awarded to Allen & Hanburys' series of pages, running from 161 to 170, while Burroughs Wellcome & Co. (pp. 143-149) are second on the list. Ucal make a good running for the third place, after which follow May, Roberts & Co., A. H. Cox & Co., Ltd., the Alliance Drug and Chemical Co., Eucryl, Wigglesworth & Co., Bernard Slack, the Standard Tablet and Pill Co., Ltd., Wright's Coal-tar Soap, Van Essen, James & Co., Ltd., C. & D. books, Parke, Davis & Co., W. B. Cartwright, Ltd., Maw, Son & Sons, Vifaer, Zambuk, Thermogene, Scott's Emulsion, Eno's Fruit-salt, and Freeman's Chlorodyne.

### MOST ARTISTIC ADVERTISEMENT.

By a large majority Burroughs Wellcome & Co. are the winners; W. J. Bush & Co., Ltd. (pp. 472-473), and Allen & Hanburys, Ltd., almost tie for second place, and Stevenson & Howell, Ltd., secure the third place. Others entitled to recognition are Potter & Clarke, Ltd., Fletcher, Fletcher & Co., Maw, Son & Sons, Ford, Shapland & Co., and Stafford Allen & Sons, Ltd.

### MOST POPULAR SPECIALITY.

Beecham's Pills proved an easy winner here, although over a score of other more or less popular specialities follow in their train. Wright's Coal-tar Soap is second and Scott's Emulsion third, after which follows Hazeline Snow. All of these stand by themselves; then come Daisy,

Zambuk, Eucryl, Pears' Soap, and Ucal in the order named; while others in order of voting are Peps, Vaseline, Fellows' Syrup, Harlene, Papier Poudré, Eno, Luton Hat-dyes, Euthymol tooth-paste, and Harrison's Pomade.

### AWARD OF PRIZES.

The winning cards read as follows :

- (1) Favourite Business House advertising in *Diary* : Allen & Hanburys (pp. 161-170).
- (2) Favourite Business House not advertising in *Diary* : Butler & Crispe.
- (3) Most Profitable Advertisement : Allen & Hanburys (pp. 161/170).
- (4) Most Artistic Advertisement : Burroughs Wellcome & Co.
- (5) Most Popular Speciality Advertised in *Diary* : Beecham's Pills.

Only one competitor succeeded in answering the whole of the five questions correctly, and to him we award two guineas. He is

Mr. J. G. Wallbridge, chemist and druggist, 227 Kensington, Liverpool.

There are, however, nine others who were fortunate enough to solve four of the questions, and to these we give 5s. each. They are :

Mr. Llewellyn Davies, pharmacist, 135 Hertford Road, Enfield Wash.

Mr. Sidney Davis, Ph.C., 50 Broad Street, Chesham.

Mr. Daniel Davison, Ph.C., Pier Pharmacy, Cromer.

Mr. D. L. Llewellyn, pharmacist, Goodwick, Pen.

Mr. K. V. Norman, Leighton Dene, Godalming.

Mr. Alex. T. Reoch, pharmacist, 55a Hawkhill, Dundee.

Mr. J. Ritchie, Ligoniel Villa, Ligoniel, Belfast.

Mr. Wm. E. Tanner, pharmacist, The Parade Pharmacy, Chingford, E.

Mr. W. Walwin, pharmacist, Gloucester.

## Synthetic Sentences.

*Coined from words selected from the advertisements in the "C. & D. Diary, 1913," and sent in competition for six half-guineas.*

Attractive	p. 72.
Manner,	" 50.
Original	" 145.
Displays,	" 101.
Expeditious	" 35.
Labour,	" 111.
Progressive	" 36.
Honourable	" 108.
Assistants,	" 504.
Refined	" 67.
Modern	" 475.
Advertising,	" 75.
Create	" 44.
Invariably	" 488.
Successful	" 16.
Trading.	" 319.

*Geo. C. Law (Plymouth).*

The term "standardised" is the hall-mark of therapeutic efficacy.—Richard Hughes Langton (Hounslow).

Pharmacists should prove themselves absolutely indispensable by filling their Insurance Act orders as perfectly as possible.—W. Chas. Sayers (Lewisham, S.E.).

Under the New Act the skilled pharmacist will work for less pay than ordinary mechanics receive.—F. C. Rawlings (Barmouth, N. Wales).

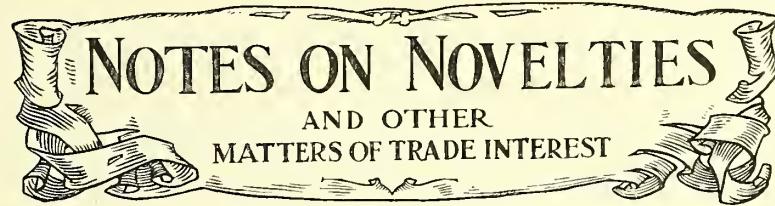
Success to pharmacists and all fellows who are original!—C. S. Clark (Bayswater, W.).

Worthless substitutes "just as good" mean that discriminating customers get all requirements from brother pharmacists.—A. S. Taylor, Ph.C. (Bristol).

THE CHEMIST AND DRUGGIST is the pharmacists' tonic—time, experience, and £ s. d. prove it.—J. C. Thackray (Liverpool).

THE CHEMIST AND DRUGGIST contains the otto of pharmaceutical progress, the *Diary* is a daily necessity.—R. J. Middler (Edinburgh).

To build up a reputation a pharmacist should sell pure drugs, good proprietaries, and reliable sundries.—Frederick Lea (Cardiff).



# NOTES ON NOVELTIES AND OTHER MATTERS OF TRADE INTEREST

## A REVISED PRICE-LIST

of medicated pastilles, lozenges, compressed tablets, packed preparations, and other goods manufactured by Messrs. Thomas Guest & Co. has just been issued by them from the City Works, Carruthers Street and Piercy Street, Ancoats, Manchester. The list is illustrated with engravings of containers and benches, with an occasional showcard supplied by the firm. Copies can be obtained on application to them.

## GODDON'S PATENT SELF-ADJUSTING TRUSS

is offered by Messrs. Sangers, 258 Euston Road, London, N.W. The distinctive feature of this truss is the pad, which is fixed to a mechanism that enables the wearer of the truss, by a simple movement, to adjust the pad to the position which he finds most comfortable for the support of the rupture. The adjustment can be done while the truss is on the body, and a little movement often means much to the truss wearer. The trusses are well produced, the metals used being tempered steel and aluminium, lightness being one of the objects aimed at.

## EVANS' EXPORT PRICES CURRENT.

The half-yearly export list just issued by Messrs. Evans Sons Lescher & Webb, Ltd., London and Liverpool, is a well-furnished volume of over 400 pages, bound in stout cloth covers. The sections are as follows : Drugs, chemicals, pharmaceutical preparations, and special products, 130 pages; druggists' sundries, 195 pages; shop fittings, 34 pages; proprietary articles, 32 pages; advertisement section, 87 pages. The various sections are easily identified, differently coloured paper being used for each. Overseas readers who have not received a copy should write to the company.

## ALUMINIUM FOIL.

Under the name "Alolit" is a novelty that will specially appeal to packers of toilet-articles, medicines, and other products connected with the drug-trade. It is put on the market by Mr. Otto Rosenstiel, 4 Charles Street, Hatton Garden, E.C., with a guarantee that it is made from absolutely pure aluminium. It is obtainable in various thicknesses, and appears to us to have a great future for wrapping purposes. We understand that it can be used both by hand and machine. Samples and prices of the new foil can be obtained from Mr. Rosenstiel on application.

## THE "ELSO" BRAND TOILET SPECIALITIES

offered by the Wholesale Chemical Works, 114 Copenhagen Street, King's Cross, London, N., are daintily-produced preparations. For example, the "Brista" shaving-soap produces a non-irritating creamy lather which does not dry while one is shaving, gives a close shave, and leaves a sense of comfort. It is packed in enamelled metal cases, to retail at 1s. "Odontine" is a well-compounded tooth-paste of pink colour and pleasant flavour, put up in oval opal jars with a bright metal top. The Wholesale Chemical Works will supply further particulars on application.

## MALT EXTRACT IN TINS.

Mr. Robert Blackie, manufacturing chemist, Shen Works, Tower Bridge Road, London, S.E., sends us a sample of "malt and oil" packed in tins. A demand for this form of package has sprung up to meet the demand for cheaper packages for supplying to insured persons under the sanatorium benefit part of the National Insurance Act. The sample before us is in lever-top tins, the tin being covered with orange paper and neatly labelled. There is a place on the label for inserting the

name of the chemist. A *souçon* of almond flavour effectively masks any taste of cod-liver oil.

## MESSRS. PARKE, DAVIS & Co.'S NEW PRICE-LIST.

Messrs. Parke, Davis & Co., London, make the following statement in their new trade price-list for 1913-14 :

"P.A.T.A. Protection: In addition to a number of minimum dispensing prices specially indicated in this list, the prices of all other articles (excepting antidiphtheria serum, bacterial vaccines, and medicine-cases) are protected by the P.A.T.A. as minimum dispensing prices. Broken quantities must be charged at not less than *pro rata* to the smallest quantity listed, or to the nearest quantity smaller than that dispensed."

This *en bloc* protection has necessitated a wholesale revision of prices, and a radical alteration in trade terms. Chemists who have not familiarised themselves with the new conditions should write to the firm for a copy of the list.

## MOSQUE RUBBER.

Mosque rubber is a pure Para rubber made in variegated shades of red and black. The effect, which is a kind of marbling, is very attractive, and, moreover, as the rubber is specially recommended as suitable for use in extreme tropical climates, it is the best for export. We gather these particulars from a new catalogue which the makers, Messrs. J. G. Ingram & Son, Hackney Wick, London, N.E., have sent us, and also from the inspection of samples of the rubber and of surgical appliances made from it. The catalogue, the cover of which is a faithful reproduction in colours of a sheet of mosque rubber, contains illustrations in colour and prices of a large number of surgical goods, of which rubber is an integral part. It is the most complete list of its kind which we have seen, and well worth close study.

## FREIGHT PAID TO DESTINATION

is one of the best maxims for getting business, and Messrs. Cresswell Brothers, sponge-merchants, Red Lion Square, London, W.C., are now applying it to their business, so that they are able to quote to buyers in the most distant parts of the Empire inclusive prices for all kinds of sponges. Moreover, they pack sponges under pressure, so that they are able to send them by parcel-post, freight thus being reduced to a minimum, while the quality and texture of the sponges is not in the slightest injured by the pressure, and the buyer can restore them to their pristine condition by damping. The reputation of Messrs. Cresswell Brothers as sponge-merchants to the drug-trade needs no commendation, and they now invite the co-operation of the trade with them in these new facilities for placing supplies quickly and cheaply in the hands of buyers at home and abroad.

## INSURANCE BANDAGES, DRESSINGS, ETC.

Messrs. Fassett & Johnson, 86 Clerkenwell Road, London, E.C., are supplying a special series of good-quality surgical dressings and appliances for National Insurance Act work, and publish a list with net trade prices, a tear-off order-form being attached. The dressings are put up in a distinctive manner, characterised by a blue wrapper with red-and-white label, the red being a diagonal half of the whole, and they are further distinguished by the trade mark, "N.I." with red arrow brand, besides a black cross on a red ground. The get-up enables the chemist clearly to distinguish between these Insurance Act supplies and ordinary stock, but Messrs. Fassett & Johnson are making a point of putting only good-quality supplies in the packages. The boric lint, for example, is a

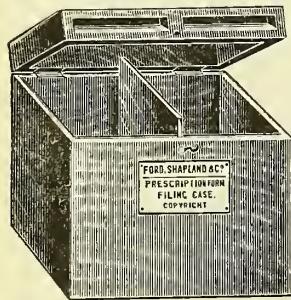
well-prepared and well-finished surgical dressing. The firm will submit samples to any buyer on application.

#### AMAMI PERFUMES.

One of the most interesting developments in metropolitan pharmacy has been provided by Messrs. Prichard & Constance, Ltd., who have recently opened at 40 Old Bond Street, London, W., a beautifully fitted shop for the express purpose of giving publicity to their Amami perfumes and toilet preparations, which are now well known on three continents. The shop is fitted as a reception room, there being no counter. Nothing is displayed in it except Amami products and other accessories to the toilet, and these are shown most attractively, the cases and other fittings being made of English oak and beautifully executed. We hope to give fuller particulars in regard to it later when a photograph is available, but in the meantime chemists who want to see new ideas for the display of goods, and for making the fullest use of limitations of space, should make a point of seeing No. 40 Old Bond Street when they are in London.

#### PRESCRIPTION-FILING.

Messrs. Ford, Shapland & Co., 6 Great Turnstile, High Holborn, London, W.C., have devised a case for filing Insurance prescriptions, which is called the "Turnstile." It



the slots in the lids and also the divided interior. The case costs 8s. 6d.

#### THE LATEST "TABLOID" PRODUCTS

are tubes of morphine hypophosphite for hypodermic use, in  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ , and 1 gr. strengths. The particular advantage of this salt of morphine is its ready solubility in water (1 in 3) and the neutral reaction of the resulting solution. Another new product is crystalline digitalin,  $\frac{1}{500}$  gr. in each tabloid, this being a most convenient form for administration to persons liable to cardiac attacks which are remedied by digitalin. Another useful product which we have examined is the adjustable head dressing. This is a nicely made cap of white linen with a tail or bandage. It is packed in compressed form with a pad of cyanide gauze and a safety-pin. The antiseptic gauze is first applied to the wound, the head dressing is placed over it, and the bandage fastened with a safety-pin. This is only the work of a minute, and from the fact that the dressing fits the head so perfectly, slipping is impossible. It is a capital form of first-aid dressing for the head.

#### "LYTRIM" OPTICS.

Messrs. F. Darton & Co., manufacturing opticians, 142 St. John Street, London, E.C., have brought out a new "invisible" form of spectacles and eyeglasses which they designate "Lytrim." The feature about these is that by the employment of a special alloy they are enabled to make eyewires of such thinness that they are almost invisible—in fact, many at first sight might mistake the "Lytrim" goods for rimless glasses. The samples we have inspected are made in rolled gold with gold joints, so that good wearing properties are ensured; the price, moreover, is no higher than that required for good rolled gold glasses. The eyeglasses are made in the astigmatic type, as well as the newer spring and finger clips. The appearance of the eyeglasses is particularly neat, and as selling points they possess several advantages over rimless goods. For one thing, the straps and perforation of

the lenses which are needed in the last-named class of eyeglasses are not required. It ought also to be mentioned that ordinary standard lenses can be employed in both the spectacles and eyeglasses, so that fitting and renewal are considerably simplified.

#### THE BUSINESS METHODS

of Messrs. Boling, Brown & Co., flint-glass bottle-manufacturers, 3 and 4 Aldersgate Buildings, Aldersgate Street, London, E.C., include the prompt delivery of orders. During the last year or so, when glass-manufacturers working at full pressure have been unable to cope with the demand for bottles, this facility in filling orders has been greatly appreciated. Increasing business has made it necessary to move to 3 and 4 Aldersgate Buildings, two doors away from the former premises, and the office space has thus been quadrupled. A glance through the firm's ledgers shows also that more and more wholesale drug-firms and packers are finding a bottle service which is always available (owing to the system for anticipating customers' demands) of mutual benefit. Quality is, of course, a prime consideration in business-building, and Messrs. Boling, Brown & Co. claim that for quality and price they supply to best advantage the bottles in which they specialise. Foremost among these are opal pomades (especially the octagonal shape), feeders of all types, and bottles for packed lines. Those of our readers who are large users of bottles and require a constant supply should certainly write for quotations.

#### THE SPECTACLEMAKERS' COMPANY.

In this issue there appears an advertisement of the holders of the diploma in optical science granted by the Spectaclemakers' Company after examination. The scheme, which has been taken up by many chemists, came into existence in 1898, and there are now upwards of 1,000 diplomates. The value of the diploma of the Spectaclemakers' Company is shown by the esteem in which it is held by the public generally and by medical men who can appreciate its significance. The number of candidates is now double what it was four years ago, so that the popularity of the scheme is not on the wane. The board of examiners, under the directorship of Sir Wm. Hart-Dyke, includes Professor Silvanus P. Thompson, F.R.S., Dr. R. T. Glazebrook, F.R.S., Dr. C. V. Drysdale, D.Sc., Dr. G. Lindsay Johnson, Dr. H. G. Critchley, and others. The success of the scheme is due to the high standard of the examinations, the ability of the examiners, the energy and enthusiasm of the Clerk of the Guild (Colonel T. Davies Sewell), and the work of the Official Instructor (Mr. Lionel Laurance). No City Guild has, within modern times, done so much for the craft with which it is connected as has the Spectaclemakers' Company. The Company holds two examinations each year in London, the next one being in May.

#### THE BELL SHOWCARD SERVICE.

We have had the opportunity of inspecting specimens of the showcard stands and the showcards supplied by the Bell Advertising Co., 56 Ludgate Hill, London, E.C., and the accompanying sketch has been made from the smallest of the showcard holders. It is a nickel-plated stand measuring 16 in. high, the support being removable, screwing into the base as well as the holder or frame. This frame measures  $6\frac{1}{2}$  by  $5\frac{1}{2}$  in., and takes two showcards, if desired, that size. There are also larger frames to take cards measuring 11 by 7 in. and 21 by 14 in. The cards are artistically produced even when nothing but type is used in them. For example, a lavender-water card is in green and lavender ink, and the wording is effective, a remark which applies to all the cards. The largest of them bear very effective three-colour engravings appropriate to the subject of the card. The system enables chemists to dress their windows with new effects,



and in a way to sell the goods, and how it is done is part of the Bell Service.

THE TWENTY-FIRST LABORATORY REPORT of Messrs. Southall Bros. & Barclay, Ltd., again illustrates the utility of analytical figures obtained on articles actually met with in commerce. A cursory inspection alone gives such points as: Considerable difficulty is met with in securing satisfactory parcels of asafetida, only one of the thirteen samples examined fulfilling official requirements. A parcel of Grecian *Cannabis sativa* contained more resin (24.22 per cent.) than the Indian-grown drug. A specimen of insect-powder said to be ground from stalks gave by Durrant's method 3.81 per cent. of deep-green oleo-resin, against 6 to 8 per cent. of brown resin yielded by genuine powder from unopened flowers. Ipecacuanha is assaying low (averaging 1.84 per cent.), while only two of the nine jalap samples were up to pharmacopœial requirements. Storax and tolu show much variation in quality. Turning to essential oils, an oil of unimpeachable purity had a specific gravity below the proposed minimum, while figures are given showing the differences in character between juniper oils from the berry and wood respectively. Among chemicals, a sample of commercial ammonium phosphate offered at a low price contained ammonia corresponding to only 37 per cent. of ammonium di-hydrogen phosphate. Two samples of zinc oxide were grossly contaminated with arsenic. A green extract of belladonna of foreign origin containing 0.42 per cent. of alkaloids had with little doubt been "reduced" with inert extractive matter. The report also contains details of research work in the laboratories on arachis oil in olive oil, the seeds of *Psoralcea longifolia*, Sibucara bark, and Lawang oil. Altogether the report continues to grow in interest, and must be of great use to those who have the task of compiling pharmacopœias and other standard pharmaceutical works.

#### SEASONABLE SUBJECTS.

Messrs. Potter & Clarke, Ltd., Artillery Lane, London, E., have this week published their new season's list of vegetable and flower-seeds.

**FIVE BARKS JUBES**  
KEEPES YOU FIT THROUGH THE SEASON  
18 PER OZ  
4 OZ 35<sup>2</sup>  
A PURE HERBAL CONFECTION OF FASCINATING FLAVOUR

the sale of the "Five Barks Jubes," which are already well-established in public favour.

#### INSURANCE DISPENSING SUPPLIES.

A special price-list of dressings and appliances has been issued by Messrs. Evans, Gadd & Co., Ltd., Bristol and Exeter.

The British Drug Houses, Ltd., 22 to 30 Graham Street, City Road, London, N., have issued a price-list of appliances, etc., to be supplied under the National Insurance Act. They include the specified kinds of bandages, gauzes, lints, wools, sundries, catheters, and plasters spread on calico.

Messrs. N. W. Mitchell & Sons, Ltd., "Bouchon" Works, Limehouse, London, E., inform us that they have had a pronounced response to their offer in the C. & D. of

their "N.I." corks, which are specially suitable for insurance dispensing. Those of our readers who have not yet seen these corks should write to Messrs. Mitchell for sample.

Early this month Messrs. Evans Sons Lescher & Webb, Ltd., Liverpool and London, issued from their Druggists' Sundries Department a price-list of the surgical appliances specified in the official Drug Tariff, and an eight-page list of the formulæ for Evans' Concentrated Mixtures, one part being equivalent to eight parts of the simple mixture.

Messrs. Ayrton, Saunders & Co., Ltd., Liverpool, have issued special order-forms for pills and tablets, a price-list of their special series of concentrated mixtures for dispensing, with an order-form, and a special list of bandages, gauzes, lints, wools, and sundries, besides plasters and the "N.S." accouplement set to retail at 6s. 6d. each.

#### PRICE-LIST.

Messrs. Knoll & Co., 8 Harp Lane, London, E.C., have issued a new edition of their chemists' price-list. This gives short notes on the various products, with doses and prices. In the case of santyl-Knoll the price has had to be increased owing to the high price of sandalwood oil, the raw product of this preparation. We have also had submitted to us the opinions of medical men and chemists regarding euresol pro capillis, which is being pushed by some chemists as a speciality.

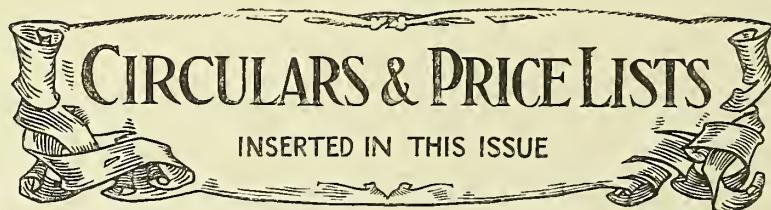
#### VITAFER WINDOWS.

We mentioned last week that Messrs. Southall Brothers & Barclay, Ltd., of Birmingham, have been doing a big business with chemists in Vitafer. The company supply free window-shows with 5*l.* worth of the tonic food. We



have received from the company a large number of photographs of Vitafer window-displays and reproduce one of them, which we have selected, in part, on account of the design of the shop-front. The large letters on the window were cut out of red paper, and were very attractive. The fan-like arrangement concentrated upon the Vitafer showcard is another striking feature.

**JAMAICA EXPORTS.**—Among the exports from Jamaica in 1911 were the following, the figures in parenthesis representing those for 1910: Annatto 5,530*l.* (6,306*l.*), beeswax 3,762*l.* (3,709*l.*), ginger 58,637*l.* (44,987*l.*), honey 25,102*l.* (19,796*l.*), lime-juice 3,400*l.* (4,634*l.*), pimento 83,252*l.* (73,660*l.*), logwood 99,108*l.* (66,218*l.*), and logwood extract 166,030*l.* (163,600*l.*). From the above it will be seen that the principal increases were ginger 13.650*l.*, pimento 9,592*l.*, logwood 32,890*l.*, and honey 5,306*l.*



TWICE a year opportunities occur for the insertion by advertisers in THE CHEMIST AND DRUGGIST of circulars and insets. The present is one of these occasions, and they are sufficiently rare to ensure the bringing together of a collection of advertisements both useful and unique. We make no apology for specially referring to this feature; it is our own child, and both advertisers and subscribers have so many times signified their approval. The present group of insets is no exception to the rule; indeed, our difficulty arises when we look round for some comparison that shall be comprehensive enough. The first analogy that occurs to us is culled from Greek mythology. Zeus, it will be recalled, set about creating something more entrancing than anything previously attempted. This took the form of the goddess Pandora, the "All-giving," in whom all good qualities were combined. Athena instructed her in all works of skill, Aphrodite endowed her with beauty and fascination, and Hermes inspired her with a desire of pleasing and taught her insinuating words. Zeus gave her the famous "Pandora's box," containing all the blessings of life. The analogy is not, we hope, overstrained when applied to the winter issue and its assemblage of insets. Beauty, fascination, desire of pleasing, and insinuating words, are they not all contained therein? Artists in type and illustration, colour-printers, word-painters, and technical experts are seen at their best, and do not all "the blessings of life" flow forth to those who use these gifts aright? Our comparison, we trust, will be borne out by a critical perusal of the insets, and as a business proposition we trust no one of our readers will neglect the opportunity of reading them. It will bring both pleasure and profit. As the insets passed through our hands we made notes of their features and record them here for the general good. These in monograph form are arranged alphabetically for convenience, and appended are indications of the positions which the insets occupy in the advertising pages.

**Allen & Hanburys, Ltd.**, wholesale druggists, 37 Lombard Street, London, E.C., distribute with this issue a list of selected packed goods. The beautifully produced list is printed on a tinted ground, with Old English type and rubrics, and with illustrations of a delicacy which is rarely seen in half-tone work. The first half of the catalogue deals with packed drugs, this including effervescent preparations, malt extract, capsules, and approved remedies for the ordinary ailments about which the public consult their chemist. Toilet preparations, soaps, and perfumery in great variety are then shown, the letterpress stating the prices of the different series. All the articles enumerated are suitable for sale in best-class pharmacies. An offer is made to send a revised and enlarged edition of the complete packed drug-list, which should certainly be applied for by those who can see their way to introduce any of these lines into their business. (Inserted loose.)

**H. Bronnley & Co., Ltd.**, perfumers, Acton Vale, London, W., issue a circular which is a fine example of delicate colour-printing. A bottle and package of Courvoisier's "Omar Khayyam" is shown on a lace handkerchief, the connection between being thus insinuatingly suggested. On the other side another special product is shown—Unical Eau de Cologne—the refreshing and reviving properties of which are being incisively appreciated. The prices are given, wholesale and retail. (Pp. 32 and 33.)

**Brunner, Mond & Co., Ltd.**, chemical manufacturers, Northwich, Cheshire, again urge upon acrated-water manufacturers the advantages of sodium bicarbonate over whiting for generating carbonic-acid gas. The facts that the product of the reaction is a readily soluble salt in place of calcium sulphate obtained in the old process, and that there is less sulphuric acid used to produce more gas, render further argument unnecessary, so far as chemists are concerned. (Pp. 64 and 65.)

**Butler & Tanner**, Selwood Printing Works, Frome, in a circular draw attention to their facilities for undertaking all kinds of commercial printing. In these days, when the advantages of advertising are appreciated in both large and small businesses, it becomes necessary to study closely the most effective way of using printing-ink. The firm offer to send samples and estimates of their work. (Pp. 178 and 179.)

**Clayton & Jowett, Ltd.**, soluble-essence makers, Liverpool, have a circular which tells of their "Gold Seal" brand soluble essences, particularly the "M.P." soluble essence of lemon and "dry" ginger-ale essence. (Foreign copies only.)

**Eucryl, Ltd.**, 61 and 63 Lant Street, Southwark, London, S.E., place in this issue an inset devoted to Eucryl tooth-powder. The circular can be located by the "E" sign and the inscription "100 per cent. protected profit." What this is we will not anticipate, as the particulars of the bonus offer are duly set forth. (Pp. 146 and 147.)

**C. R. Harker, Stagg & Morgan, Ltd.**, wholesale druggists, Devon Wharf, Emmott Street, Mile End, London, E., show in a circular what is meant by the "Golden Horse Shoe" brand. This brand is applied to special articles like Vitalactine, chemical food, Rangoon oil, and extract of red Jamaica sarsaparilla, and is the mark of quality in drugs. Some views of the works and portraits of the directors are also given. (Foreign copies only.)

**C. J. Hewlett & Son, Ltd.**, wholesale druggists, 35 to 42 Charlotte Street and 83 to 85 Curtain Road, London, E.C., give particulars of the Menthymoline series of dental preparations, a reproduction in colours of the tooth-paste label being affixed to show the style of packing. Other specialities for counter-sale are also figured. (Foreign copies only.)

**Horlick's Malted Milk Co.**, Slough, place in this number a circular in regard to Horlick's Malted Milk. The familiar package is reproduced in facsimile—the prices are also given—while the other side tells of the lunch-tablets which are being widely taken up by travellers, sportsmen, athletes, and cyclists as a convenient form of concentrated nourishment. (Pp. 64 and 65.)

**The Ichthylol Co., Cordes Hermanni & Co.**, Hamburg, explain in a circular the correct designations for their products. Briefly, it may be stated that what is known as "ichthylol" is the so-called "ammonium sulpho-ichthyolate," and that the word "ichthyolate" is a trademark used upon the Ichthylol Co.'s sulpho-products. The confusion which results from the coining of names for imitation articles is cleared up by the circular. (Pp. 64 and 65.)

**J. G. Ingram & Son**, indiarubber manufacturers, Hackney Wick, London, N.E., have a four-page inset devoted to their special manufactures. There is first of all the popular "Agrippa" band teat and valve, which are made in black and transparent rubber; the features of these inventions are fully set forth. Then follow colour-prints and details of two enemas, upon the perfection of which the firm's resources and experience have been freely expended. These are the "Sterilendum" and the improved "Utilema" enemas. It will be noticed that these goods are sold at protected prices. On the fourth page is a long list of other rubber goods which are made by the advertisers. (Pp. 146 and 147.)

**Jewsbury & Brown**, Ardwick Green, Manchester, pack their Oriental tooth-powder in very attractive new forms of packages. Exact facsimiles of these are shown in the inset which the firm place in this number. It is designed for use as a showcard, and of its attractiveness there can be no two opinions. The feature of the flat box is explained by a diagram, and although there may be an incitement to economy, the method shown certainly ensures that the powder remains in the best condition right up to the end. (Pp. 32 and 33.)

**McKesson & Robbins**, manufacturing chemists, New York, U.S.A. (London agents, S. Maw, Son & Sons, 7-12 Aldersgate Street, E.C.), tell in their inset the advantages of the "McK. & R." capsuled pills. These are ovoid in shape, and the gelatin coating, besides its handsome

appearance, is of unquestionable solubility. Examples of the formulae occupy the two inner pages of the inset, and it is stated that important reductions have been made in list prices. The fourth page is devoted to Calox, "the oxygen tooth-powder," for which the British dépôt is G. B. Kent & Sons, Ltd., 75 Farringdon Road, London, E.C. The rationale involved in the employment of Calox is explained. (Pp. 146 and 147.)

**Parfumerie L. T. Piver**, Paris (London Dépôt, 9 and 10 Edward Street, Soho, W.), insert a beautifully produced circular regarding their perfumes. When our readers open this they will see reproduced in proper colours the packages of the original soaps and perfumes with which the name of Piver is associated. The prices are given on the back page of the inset, with particulars of a special offer to those who give a 5*l.* trial order. (Pp. 32 and 33.)

**A. & F. Pears, Ltd.**, soap-makers, 71 to 75 New Oxford Street, London, W.C., repeat the brilliant inset that they have given in special issues of this journal on previous occasions. The beautiful colouring of the heraldic designs, which all will admire, forms an admirable setting to the message of equal treatment meted out to large and small purchasers of Pears' soap. It must be acknowledged that for consistency the proprietors of Pears' soap have established an enviable record. (Pp. 32 and 33.)

**O. A. Pfleifer**, bottle manufacturer, 6 Dyer's Buildings, Holborn, London, E.C., shows on a circular some special lines in opal glass. These are printed by a method which gives the opal effect, while on the back of the circular are pictures of a few other varieties of glassware. (Pp. 178 and 179.)

**The Postlip Mills**, whose products are obtainable through all wholesale houses, have the happy idea of inserting in this issue samples of their filter-papers and Seidlitz blue. The quality and stability of the last-named paper is no negligible matter in many businesses, so that the opportunity will be appreciated of handling and testing the material. The filter-papers are English-made, and the important property of chemical purity is not overlooked. (Pp. 146 and 147.)

**Powell & Barstow, Ltd.**, surgical-appliance manufacturers, Nelson Place, 246A Borough High Street, London, S.E., insert their price-list in this issue. In the sixteen pages of this list will be found enumerated a wide range of surgical goods, these including elastic stockings, supporting belts, suspensory bandages, trusses, chest protectors and expanders, and douches. Illustrations and prices are given. (Inserted loose in home copies only.)

**Ruddock & Co., Ltd.**, shop-fitters, 262 Old Street, London, E.C., offer practical hints to those about to open a pharmacy or alter existing shops. They show in detail, for example, what can be done for 75*l.*, and there is many a chemist at present in an ancillary capacity who on reading this inset will feel the call to launch out for himself. The estimate for complete fittings and the separate priced and illustrated items in the inset are most useful in a survey of ways and means. (Pp. 178 and 179.)

**A. Sanderson & Co., Ltd.**, paint and varnish makers, Hull, produce a good series of mixed paints, varnishes, and polishes, and show in their circular reproductions of the packages of these products. In some businesses there is room for a considerable expansion of the trade in these preparations, and with the convenient, cleanly, and complete series here offered the business should be encouraged. The season for these goods is approaching, and more than a passing glance should be given to the matter. (Pp. 32 and 33.)

**The "Sanitas" Co., Ltd.**, Locksley Street, Limehouse, London, E., insert their complete price-list as an inset. This is prefaced by explanatory notes as to the uses of the company's special manufactures. The price-list gives an idea of the great variety of products which are available for sanitary purposes, and the tabulation of the ordinary and minimum retail prices and the trade rate should be useful for reference purposes. (Pp. 32 and 33.)

**Schimmel & Co.**, essential-oil distillers, Miltitz, near Leipzig, place in this issue a treatise on the scientific production of essential oils and perfume products. This, which is well worth perusal, takes the form of a description of a visit to the works of this famous firm at Miltitz, one of the garden villages of Germany. From the inset, with its beautiful illustrations, it is possible to form an idea of the splendid organisation which has been evolved and is devoted to the production of volatile oils and perfume materials. The establishment dates from 1829, but at the beginning of the present century the move was made to Miltitz. One notable feature is the research laboratory.

This was established in 1879, and is claimed to be the first scientific laboratory to be established in the essential-oil trade. (Inserted loose.)

**Stevenson & Howell, Ltd.**, soluble-essence makers, Southwark, London, S.E., have a system of guarantee for their products, which depends, among other things, upon the packages bearing their "Red Ball" trade-mark. This mark is reproduced on the inset which they have in this number. Particulars are also given of the soluble essence of lemons, to which special attention is drawn, and as this preparation is generally taken to be a test of the perfection attained by essence-makers, we may be sure that it bears out the designation of "faultless." (Pp. 64 and 65.)

**F. J. Stokes Machine Co.**, pharmaceutical engineers, Philadelphia, U.S.A. (sole agents, Thompson & Capper, Ltd., Manesty Buildings, College Lane, Liverpool), devote an inset of eight pages to illustrations and particulars of their leading lines in pharmaceutical machinery. Tablet-machines are shown from the "Eureka" for counter use to the majestic rotary machines which turn out an incredible number of tablets at tremendous speed. Other useful and modern machines are displayed for mixing, granulating, grinding, coating, and shredding, and also the moulds employed for making tablet triturates and hypodermic tablets. The last page deals with distilling apparatus, there being shown, among others, a convenient still for retail pharmacists who desire to prepare distilled water. (Inserted loose.)

**James Townsend & Sons**, chemists' printers, Exeter, insert samples of their printing as applied to labels. The whole inset may be taken as evidence that the firm's work is of a comprehensive character, and we judge from the labels that their business extends to all the ends of the earth. It should be noted that only a limited range is reproduced; fuller sample-books are ready for submission to those who desire a wider range of choice. (Pp. 32 and 33.)

**Wright, Layman & Umney, Ltd.**, wholesale druggists, Southwark, London, S.E., devote a twelve-page inset to Wright's "Liquor Carbonis Detergents" and other coal-tar specialities. First we are shown the home of Wright's coal-tar soap, then are given particulars of "Liquor Carbonis Detergents" for the prescriber and the dispenser. Next follows important information regarding advertising displays, showing how with but little dislocation of business a chemist can make a display which will pay him in profit and also place him in the running for valuable prizes. The cuts of showcards at the end show to what a pitch of perfection the advertisements have attained. (Pp. 32 and 33.)

#### Publisher's Note.

The next occasion upon which circulars, price-lists, or other insets can be received for insertion in THE CHEMIST AND DRUGGIST is the Summer Number, which will be published on July 26. Intending advertisers can obtain printed particulars of the conditions upon which insets are taken, and the expert assistance of our advertising department is placed at the disposal of those who desire it. It is as well that preparations should be carried out well ahead, so as to obviate the inconvenience which might be entailed by unlooked-for delays.

## The Morning After.

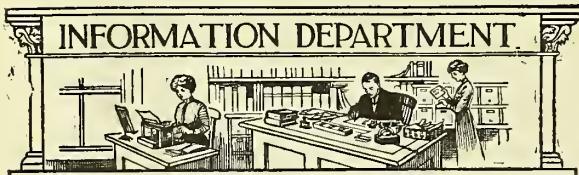
Nay, mother, nay. Though I be weak and wan,  
Fetch not the doctor, mother, I beseech;  
It is but megrims—it will pass anon;  
Oh! mother, not the leech.

But, if 'twill solace your maternal mind,  
Seek now the chymist—there is one that hangs  
Out by the corner—he, no doubt, will find  
Some easement of my pangs.

He has great store of simples, low in prie,  
Comely and void of taste and prompt to heal.  
To swallow, with a little water, thrice,  
One after every meal.

Be his the choice. And, ere the day go by,  
We will remit these humours and this pain;  
But let not the physician come to pry  
Till I am well again.

DUM-DUM in *Punch*.



Postal Address:

C. & D. INFORMATION DEPARTMENT, 42 Cannon Street, London, E.C.  
Telegraphic Address: "CHEMUS CANNON LONDON" (two words).

Telephone Number: BANK 852 (two lines).

## INFORMATION WANTED.

Would any reader who knows please inform us by postcard or telephone of the names and addresses of the agents or makers of the articles mentioned in the following inquiries:

204/15. "Samra" food: supply.  
 205/67. Hersey's pills: proprietors.  
 207/51. "Conquest" belts: supply.  
 205/271. "Jaffa" suspensors: makers.  
 204/150. "Nervcoll" food: makers.  
 197/17. Lecithin (vegetable): supply.  
 205/270. "Canoe" feeder: suppliers.  
 205/27. Liebrich's eye-bandages: makers.  
 204/9. "Soft Spots": address of makers.  
 204/8. Clayton's Wheaten Food: supply.  
 205/670. "Bovell" stramonium cigarettes.  
 196/40. Makers of "Londonian Perfumery."  
 191/15. "Bakhar. Puly.": where obtainable?  
 205/671. Dr. Patterson's female pills: supply.  
 201/71. Lapis Hibernic (Irish slate): first-hand supply.  
 199/65. "Beatin" (said to be a concentrated extract of beets): supply.  
 200/24. *Laminaria digitata* (sea tangle): suppliers at first hand for export.  
 207/33. "Cordial Balm of Syriacum" (originally made by R. & L. Perry): supply.

## INFORMATION SUPPLIED.

During the past week we have answered inquiries as to where the following articles are obtainable wholesale. We shall be glad to repeat the information to others who send to this Department a stamped and addressed envelope for the purpose.

Abdine, 205/70  
 Alopccura, 197/4  
 Anti-thyroid serum, 205/68  
 Barstow's filter, 205/27  
 Bidets, 197/15  
 Brady's dearomol, 191/3 and 195/21  
 Brompton cough specific, 207/28  
 Bunter's nervine, 206/3  
 Buxton rubbing-bottle, 190/58  
 Calorgene, 201/59  
 Cocoa-butter substitute, 204/48  
 Cole's parasitic-lotion, 195/14  
 Crème Peltzer, 203/61  
 Cystopurin, 205/61  
 Falconer's Golden Compound, 205/67  
 Herrick's pills, 204/29  
 Lactogen, 200/67  
 Magnesite, crude (importers), 203/20  
 Martin's apiol pills, 207/281  
 Menthol and eucalyptus pastilles, 207/29  
 "Monna Vanna" perfume, 195/28  
 Mykrol, 200/670  
 Nev-a-Hone razor-strop, 205/27

"Nopaine" dental anaesthetic, 200/35  
 Offord hygienic truss, 200/67  
 Oiled paper (makers), 203/18 and 205/19  
 Opal pots, 204/16  
 Ozerine, 200/69  
 Panama bomb (stain-remover), 201/45  
 Pelletierine Tanret, 200/70  
 Peppermint lozenges (in rolls), 205/23  
 Petanelle products, 205/69  
 Pinex, 202/200  
 Poudre Simon, 202/2  
 Ross's life-pills, 205/32  
 Shop-window display apparatus, 203/68  
 Soap dispensers (liquid), 204/20  
 Spermaceti (Dutch inquiry), 202/29  
 Spinal carriages, 206/1  
 Sulpholine-lotion (export), 207/280  
 Vacuum flasks (English makers), 203/180  
 Vanderhoof's specialities, 199/50

"Virilla" toilet-paper, 199/61

SIAMESE PEPPER.—The exports of pepper from Bangkok during 1911-12 amounted to 1,442 tons (69,808<sup>l</sup>), against 1,130 tons (52,667<sup>l</sup>) in 1910-11 and 1,328 tons (51,360<sup>l</sup>) in 1909-10. It will be seen that the value in 1911-12 was 17,141<sup>l</sup> above that of the preceding year, and is higher than in any year since 1904; 64 per cent. of the total export was sent to the United Kingdom.

## FESTIVITIES.

## C.A.A. Social Evening.

A SOCIAL EVENING was held at 73 Newman Street, London, W., on January 16, at which there was a moderate attendance. Whist was the order for the evening, but after a few games had been played a general discussion on the National Insurance Act was indulged in, this subject apparently occupying the minds of most of the players to the exclusion of cards.

## Whist-drive.

THE members of the Bath Pharmaceutical Association and their friends gathered at the Grand Pump Room Café on January 16 for a whist-drive. The attendance was smaller than usual, but those present enjoyed a very pleasant evening. The President (Mr. Luther Wilson) acted as M.C. The prize-winners were: *Ladies*—(1) Mrs. Olds, (2) Miss E. Clarke, (consolation) Mrs. Hallett. *Gentlemen*—(1) Mr. Gear, (2) Miss Griffith (playing as gentleman), (consolation) Mr. Evans. Prizes for hidden numbers were won by Mrs. Clarke and Mr. Lee.

## A Paisley Social Evening.

THE members of the Paisley Pharmaceutical Association on January 14 held a social evening in the Y.M.C.A. Hall. Mr. Fraser (President) occupied the chair, and was supported on the platform by Messrs. R. T. McCowan, William Seid, and H. Stewart (Secretary). The arrangements for the entertainments were in the hands of Mr. Henry Hannah. The artistes included Misses Harvey and Ferguson, Messrs. R. Wallace, Currie, McCulloch (elocutionist), and McLean (accompanist). Mr. Hannah (who was absent through indisposition) sent his gramophone, upon which selections were given by his assistant, Mr. Turner. Tea was served about 9 P.M. by Mr. Lorimer and assistants. Votes of thanks concluded the evening.

## The Shops Act, 1912.

**Caerphilly.**—The Urban Council on January 17 issued an order for local chemists to close at the following hours: Abertridwr and Senghenydd Wards, Mondays and Fridays, 7.30 P.M.; Tuesdays and Wednesdays, 7 P.M.; Thursdays, 1 P.M.; Saturdays, 11 P.M. Caerphilly, North and South Wards, Mondays, Tuesdays, Thursdays, and Fridays, 8 P.M.; Wednesdays, 1 P.M.; Saturdays, 10.30 P.M.; Ystradmynach and Nelson Wards, Mondays and Fridays, 8 P.M.; Tuesdays and Wednesdays, 7 P.M.; Thursdays, 1 P.M.; Saturdays, 11 P.M. Taffs Well Ward, Mondays, Tuesdays, and Thursdays, 7 P.M.; Wednesdays, 1 P.M.; Fridays, 8 P.M.; Saturdays 10.30 P.M.

**Colwyn Bay.**—The Urban District Council on January 14 resolved to make a closing order for the whole of the district as follows: October 1 to June 30 inclusive—Mondays, Tuesdays, Thursdays, 7 P.M.; Wednesdays, 1 P.M.; Fridays, 8 P.M.; Saturdays, 10 P.M. July 1 to September 30—Mondays, Tuesdays, Thursdays, Fridays, 8.30 P.M.; Wednesdays, 1 P.M.; Saturdays, 11 P.M. Thursday preceding Good Friday, Christmas Eve, and on the day next preceding any public holiday, 10 P.M. The following proviso is to be added: "This order shall not prevent any pharmacist supplying medicines, surgical appliances, or articles of urgent necessity for the sick-room or nursery to any person applying at a side-door, or by means of a shop-bell, after the hours enumerated above, but the shop must not be kept open for that purpose after the specified hours."

**London.**—The County Council has rescinded certain resolutions, the result of which rescission will be that the Act will be administered by the Council through the Public Control Committee.

**Manchester.**—The delay of putting into force the closing order for the chemists' shops of Manchester is causing widespread dissatisfaction, says a correspondent. Now that most of the pharmacies are open from 7 P.M. to 9 P.M. for Insurance dispensing, it seems as if the much-appreciated half-holiday is to be done away with.

THE imports of chemicals into Finland during 1911 amounted to 259,640<sup>t</sup>, of which 60,720<sup>t</sup>. was derived from the United Kingdom, 88,320<sup>t</sup>. from Germany, and 7,240<sup>t</sup>. from Russia.

**Macassar Copal.**—The Macassar market (says the British Consul) remained in the same depressed state as in 1910. Statistics of the quantities exported during the past three years are: 1909, 3,528 tons; 1910, 2,946 tons; 1911, 2,847 tons.

## OBSERVATIONS AND REFLECTIONS.

By Xrayser II.

## Many of the Difficulties

of Insurance dispensing will disappear when we get close to them, or, in the language of your leading article, many considerations look more important now than they will be ultimately. The difficulties are obvious, and they are so easily magnified that we are all unconsciously apt to try our hand at solving them. Some of the points that have been the subject of not a little discussion both privately and in print are already solving themselves. Experience gained as the result of trying one method in any given district will soon determine whether such method is universally applicable. For example, the Falkirk arrangement between doctors and chemists, by which the former will place the date and hour on the prescription in order that the latter may have some means of judging whether a late customer is requiring medicine for an urgent case, is really most excellent. It only requires such a plan to be proposed for one to see how self-evident it is and to be surprised that no one should have thought sooner of such a simple method of getting out of what might often be a serious difficulty. Even though the plan may add ten seconds to the time required to write the prescription, I have no doubt that it will be adopted in many districts where doctors and chemists come together and discuss matters in a friendly way. Medical and pharmaceutical members of the Local Committee should agree on a recommendation along this line.

## The Spirit Shown

on all sides seems to promise the realisation of your forecast as to the ultimate smooth working of the business. I am, however, surprised that the offer of the Doncaster doctors to do all the out-time dispensing commended itself to the chemists of the town. It would seem better policy to accept any temporary inconvenience rather than appear to minimise the importance of pharmacy dispensing. I observe that stock mixtures are objected to by Mr. Rowsell, and probably many others. This may be theoretically a perfectly sound attitude. There are other points of view—e.g., that of the busy doctor, who thinks in terms of stock mixtures, and who has used nothing else all his life. If stock mixtures are barred, so also must stock syrups and all ready-made mixtures of whatever class. There would be nothing immoral in a doctor writing mist, tussis co. any more than in writing syr. hypophosph. co. B.P.C., as Mr. Rowsell will no doubt admit, and what is sauce for the B.P.C. goose is sauce for the Insurance prescribing and dispensing gander. Nevertheless, Mr. Rowsell's opinion carries weight; he was at the head of the Committee which drafted the tariff; he knows the system and its pitfalls. It is the latter, presumably, which he is warning us against, but meanwhile the Insurance authorities are encouraging the stock-mixture type of prescribing.

## Mr. Waring's Evidence

before the Patents' Committee may, I think, be taken as representing fairly the opinion general among pharmacists with regard to the points upon which he was questioned. No pharmacist can be better informed on such subjects than he, and he gave his evidence frankly and clearly. Individuals here and there will not agree with him on all particulars—I do not myself—but he defined for the Committee's guidance the attitude of the trade as a whole with remarkable accuracy. We have no reason to be ashamed of this attitude. Ethically considered it may not be beyond criticism, but it compares favourably with accepted standards of commercial honesty, and with the practice of the profession to whose initiative this inquiry is due. Mr. Waring again exposed the unfairness of the "Secret Remedies" pamphlets. Apparently Mr. Bathurst did not see the relevancy of his statement that only about one-fifth of the articles mentioned in them have a large sale, and that nearly half have none at all. The implication, however, clearly was that

## The Whole List was Representative,

that the bulk of the trade done in such things was fraudulent, or at least injurious to the public. The distinction Mr. Waring drew between such remedies as Roulet's injection and abortifacients is not only practically justifiable, but sound in principle, and his contention that Beecham's pills by any other name would not smell as sweet is undoubtedly true; but there is an apparent inconsistency between his opinion that the publication of formulas would be unfair to proprietors and his admission that in practice it has not been found to injure sales. Personally, I have not found that private chemists usually adopt fictitious names for their proprietaries, and though the use of one's own may occasionally result in a charge of having interested motives in pushing them, I am convinced that this is more than overbalanced by the confidence the better-class pharmacist's customers have in him. One sees that a wholesale house is compelled to use fictitious names, but the real name is better and more straightforward where it is practicable.

## The Wattle Industry

is going, it seems. I should be sorry to be thought to speak flippantly on the subject, but may I remind those who are connected with it of Mr. Douglas Sladen's little poem?

"Why should not Wattle do  
For Mistletoe?  
Ask'd one—there were but two—  
Where wattles grow.

A rose-cheek rosier grew:  
Rose-lip breathed low—  
Since it is here—and *You*—  
I hardly know  
Why Wattle should not do."

Might not the industry revive if cultivated with a view to such contingencies?

## "Pylles of Cochee"

appears to have been the earliest English form of *Pil. Cochiae* (or *Cocciae*), and it is said in the "Oxford English Dictionary" to be an adaptation of the French *pilules cochées*, which a well-known correspondent of "Notes and Queries" now declares to mean "notched pills." *Pil. Cochiae*, he says, is, or was, usually sold in bars like those in which chocolate is now made, and these were notched to mark the proper dose. This is quite new to me; I have never met with this preparation in any such form, and it is not in accordance with what we are told on good authority in "The Chronicles of Pharmacy." Nor is there anything in Littré to lend it any colour. Littré says, under *Cochée*: "Terme de pharmacie. Pilules cochees, certaines pilules officinales qui purgent fortement," with a quotation from Paré (sixteenth century), and this etymology: "Il paraît tenir à *es-cocher*, battre la pâte du biscuit avec la paume de la main." Wootton's statement is that *Pil. Cocciae* means simply pills of the size of a coccion—that is, of a small berry—and was used from the sixth century downwards to distinguish these from the larger katapotia formerly in common use. As *Pil. Cochiae* was a somewhat drastic purgative, these smaller pills were peculiarly apt to be prescribed in the smaller form, which thus came to be identified with this particular preparation. This is certainly the most convincing derivation yet suggested for the term. Liddell and Scott cite Alexander of Tralles (*circa* 570) for both *kokkos* and *kokkion* (its diminutive) as names for pills, and our first London Pharmacopoeia takes over both the name and the thing from the Arabian physician Rhazes. Our *Pil. Coloc. Co.* is the lineal descendant of *Pil. Cocciae minores*. In the face of these facts there seems no need to refer to the French for the origin of *Pil. Cochiae*.

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## Editorial Articles.

### A New Epoch in Pharmacy.

#### IV. Computation.

Of all the problems which are arising from dispensing under the National Insurance Act, the pricing of the prescriptions is easily first, and in considering it we desire at the outset to impress upon all interested that there is no occasion for haste in pricing, because accounts have not to be rendered until the end of the quarter (although monthly statements may be wanted), by which time everyone who has anything to do with the business will have the opportunity of becoming fully informed upon the subject. We find that some dispensers are using the carbon paper to mark the prices on the duplicate prescriptions, thus making indelible figures. It would be better to mark the prices in pencil on the form which is retained, and not to write on the form to be sent to the Insurance Committee until the prices have been checked and corrected. We find a certain proportion of errors in the pricing of prescriptions which have been submitted to us. Hence our advice to delay. Some latitude for errors either way will, we trust, be allowed by all Insurance Committees, because the pricing principle is novel in this country, and complicated where the Continental system (on which it is based) is simple, owing to the fact that in Continental dispensing both liquids and solids are weighed, and prices are reckoned by the weights of the substances. In Great Britain solids alone are prescribed and dispensed by weight, while liquids are always given by measure, and the drug-tariff prices are framed accordingly. Doubts soon arise, and the object of this article is to clear them away. The prices in the tariff are:

Per ounce, avoirdupois, of 437½ grains for solids, and apothecaries' ounce of 480 minimis for liquids.

Per drachm, apothecaries', of 60 grains for solids and 60 minimis for liquids.

Per grain.

The rule is "Solids by weight, Liquids by measure," and it is followed by a rule for calculation, viz.:

A quarter of a drachm or ounce or large quantity to be charged at drachm or ounce rate. The prices to be nearest 2d., whether up or down.

The confusion is chiefly due to varied workings of these rules. Now it has to be noted that a quarter of an ounce of a solid is less than 5ij., consequently the latter amount is by the pricing rule outside the drachm rate of payment and in the ounce rate—e.g., "Bismuth. salicylat. 5ij." is to be charged 3½d., it being more than ½ oz. (3d.), and ½d. covers the value of the 11 gr. more. Many other examples of similar problems could be given for the purpose of making the working of the tariff clear, but the more that

is said about the thing the more confounded becomes the confusion. So we have reduced all the difficulties by mathematical process to a ready-reckoner table, which is printed on p. 131. This includes the whole of the prices given in the tariff, except the first  $\frac{1}{2}d.$  per oz. rate, which does not require calculation, and they have been worked out to the prices for fractional parts, all the rules being taken into account.

## BASES OF COMPUTATION.

To calculate all quantities above  $\frac{1}{4}$  oz. (109.3 gr.) with accuracy is a matter of multiplying tariff ounce-rate by the number of grains and dividing by 437.5 gr. It will thus be seen that the matter often resolves itself into a lengthy operation of multiplication and division, if fairness to all parties is to be observed. Close approximations can be made in the case of drachms by taking as divisor 440, when fractions become for 5j.  $\frac{3}{22}$ ; 5ij.  $\frac{3}{11}$ ; 5iiij.  $\frac{9}{22}$  5iv.  $\frac{6}{11}$ ; and so on. Another way is to regard 5ij. as  $\frac{1}{4}$  oz. +  $\frac{1}{40}$  oz., 5iv. as  $\frac{1}{2}$  oz. +  $\frac{1}{20}$  oz., etc. However, as prices must be to the nearest  $\frac{1}{2}d.$ , even these close approximations break down at times. Thus 5iiij. weight at the 3d. rate must be charged 1d., although actually it is equivalent to 1.23d.; on the other hand, 5iiij. weight at  $5\frac{1}{2}d.$  must be priced at  $2\frac{1}{2}d.$ , although it is only equivalent to 2.26d. Again, it is not safe to double the 5ij. weight rate to get the 5iv. rate—e.g., 5ij. at 6d. is charged  $1\frac{1}{2}d.$ , but 5iv. is charged  $3\frac{1}{2}d.$ , not 3d. Further, chemists will lose considerably if rough approximations are made, such as taking seven-eighths of the tariff rate for 5vij. weight. It is here that the table will be useful. In it each price is reduced or raised to its proper place. In the case of farthings the price given in the table is the next highest halfpenny; in case of other fractions of a penny the price given is the nearest halfpenny above or below. As all the prices (except  $\frac{1}{2}d.$ ) in the tariff are included, it is only a matter of inspection to find the nearest drachm by weight or measure. Interpolation for amounts between these is easy. As all prescription-pricing is to be checked, it is only in this manner that agreement as to price, which is so important a matter between debtor and creditor, can be arrived at without the possibility of discord. The only care to be taken is to remember to charge solids by weight and liquids by measure. Pricing at the drachm or grain rate is usually a simple matter, and does not call for other tables.

In computing the prices of drugs outside the drug list, divide a wholesaler's price per lb. by 11 to get the tariff price per ounce, and again by 7 to get tariff charge per drachm. The latter divided by 50 gives the charge per grain. Drugs purchased in small quantities and listed at prices per oz. avoirdupois (437.5 gr.) call for special treatment, four-tenths of the cost price being added to get the price per apothecaries' oz. (480 gr.). The further subdivision by 7 and by 50 is as above. It is solely to get the drachm and grain prices that four-tenths of the wholesale list-price is added; ounce prices are in all cases for the avoirdupois ounce. The tariff price per ounce of liquids of specific gravity approximating that of water, such as tinctures, etc., is rapidly calculated by reckoning shillings as pence and 6d. as  $\frac{1}{2}d.$ , this being equivalent to dividing by 12. The tariff rate per drachm is again deduced by dividing by 7, and the charge per minim by further subdivision by 50. In the case of liquids of high specific gravity, such as syrups, chloroform, etc., the first division of the price per pound in order to get the ounce rate is by 9, while the drachm and minim rates are arrived at as above. As the tariff is far from being inclusive, drugs outside the list will be prescribed fairly frequently. It is best to adopt a net price list as the primary price.

The drug list gives no special rule for proprietary preparations, which are charged on a basis different from the pound or ounce, but the above rules apply. Thus, if a 6 oz. bottle of a fluid preparation costs 2s. (i.e., 24s. per doz.), calculate what a pound will cost, then divide by the liquid factors according to its density. P.A.T.A. minimum prices may be taken in other cases.

## ILLUSTRATIVE EXAMPLES.

The following Insurance prescriptions have been priced in accordance with the tariff price-table. These have been selected from a large number of Insurance prescriptions on account of one point or other which is peculiar to each, and notes of explanation are attached:

Bismuth. carbonatis 5ij. ...	...	...	3d.
Tr. catechu 5ss ...	...	...	2d.
Liq. morph. hydroch. 5ij. ...	...	...	1d.
Aq. ad 5vij. ...	...	...	$\frac{1}{2}d.$
5ss. 4 hrs.			

Dispensing-fee ...	2d.
	$\frac{1}{2}d.$

The bismuth carbonate must be charged at the ounce rate.

Bism. carbonatis 5j. ...	...	...	2d.
Sodii bicarb. 5ij. ...	...	...	$\frac{1}{2}d.$
Acid. hydrocyan. dil. mxxiv. ...	...	...	$\frac{1}{2}d.$
Aq. chlorof. ad 5vij. ...	...	...	1d.
Sig.: 5j. t.d.s. ante cib.			

Dispensing-fee ...	2d.
	6d.

The chloroform-water is charged at 1d.,  $\frac{1}{2}d.$  for 6 oz., and  $\frac{1}{2}d.$  for the part of 6 oz. One subscriber asks if 8 oz. is not nearer 6 oz. than 12 oz., but that consideration does not enter here, as this mode of charging is specially noted in the tariff.

Tr. nuc. vom. 5ij. ...	...	...	1d.
Tr. strophanthi 5iss. ...	...	...	$\frac{1}{2}d.$
Inf. gent. co. conc. 5ss. ...	...	...	1d.
Aq. ad 5vij. ...	...	...	1d.
5ss. t.d.s.			

Dispensing-fee ...	2d.
	$\frac{1}{2}d.$

Note 2 fl. dr. of tr. nuc. vom. is charged 1d., while 5iss. of tr. strophanth. (although listed same price) is priced at  $\frac{1}{2}d.$ , as it is reckoned on the drachm rate (i.e., below  $\frac{1}{4}$  oz.). The concentrated infusion is equivalent to 4 oz. of ordinary infusion, which is charged at 1d. ( $\frac{1}{2}d.$  for 3 oz. and  $\frac{1}{2}d.$  for the fractional part of 3 oz.), and, curiously, that is also the nearest charge for  $\frac{1}{2}$  oz. of concentrated.

Sodii bicarb. 5iss ...	...	...	$\frac{1}{2}d.$
Ext. cascara liq. 5ij. ...	...	...	$\frac{1}{2}d.$
Spt. ammon. co. 5iss. ...	...	...	1d.
Spt. chlorof. 5j. ...	...	...	1d.
Aq. ad 5vij. ...	...	...	1d.
5j. t.d.s.			

Dispensing-fee ...	2d.
	$\frac{1}{2}d.$

The price for the liquid extract of cascara sagrada works out at  $\frac{1}{2}d.$ , and  $\frac{1}{2}d.$  is accordingly charged as the nearest halfpenny.

Quin. sulphat. gr. 15 ...	...	...	$\frac{1}{2}d.$
Ac. sulph. dil. m20 ...	...	...	$\frac{1}{2}d.$
Liq. rosea dulc. m20 ...	...	...	$\frac{1}{2}d.$
Aq. ad 5v. ...	...	...	$\frac{1}{2}d.$
5ss. every 4 hrs.			

Dispensing-fee ...	2d.
	4d.

The charge for the quinine is  $\frac{5}{8}d.$  (i.e.,  $2\frac{1}{2}d.$  ÷ 4), and this is nearer  $\frac{1}{2}d.$  than 1d., at which this ingredient had been priced by the dispenser.

Sod. salicyl. 5ij. ...	...	...	1d.
Potass. bicarb. 5iv. ...	...	...	$\frac{1}{2}d.$
Ammon. carb. 5j. ...	...	...	$\frac{1}{2}d.$
Vin. ipecac. 5ij. ...	...	...	$\frac{1}{2}d.$
Syrupi (5j.) q.s. ...	...	...	$\frac{1}{2}d.$
Aquam ad 5vij. ...	...	...	1d.
5ss. quaque quarta hora ex aqua.			

Dispensing-fee ...	2d.
	6d.

The sodium salicylate is charged 1d., and not  $\frac{1}{2}$ d., as at the drachm rate. Similarly vin. ipecac. calculates out at  $\frac{5}{2}$ d. on the ounce rate, and  $\frac{1}{2}$ d. is charged accordingly. Curiously enough, in an almost exactly similar "script," 5iss. of vin. ipecac. is ordered. This must be charged 1d. at drachm rate.

Spt. ammon. arom. 5iij.	...	...	...	1 $\frac{1}{2}$ d.
Podophyllin. gr. ii.	...	...	...	$\frac{1}{2}$ d.
Ext. cascara liq. 5iv.	...	...	...	1d.
Saccharin. gr. j.	...	...	...	$\frac{1}{2}$ d.
Spt. chlorof. 5ij.	...	...	...	1d.
Aq. ad 5vj.	...	...	...	$\frac{1}{2}$ d.

Sig.: Every four hours.

Dispensing-fee	...	2d.
		<u>7d.</u>

The question arises if this prescription should not have been written on a pink form, as saccharin is not included in the drug-tariff. Strictly speaking, this should be dispensed only when so written, but no doubt few chemists would be so meticulous as to refuse to accept it as a valid order. There is bound to be some pardonable irregularity in this matter.

Vin. ipecac. 5iij.	...	...	...	1d.
Tr. camph. co. 5iij.	...	...	...	1 $\frac{1}{2}$ d.
Pot. bic. 5ij.	...	...	...	$\frac{1}{2}$ d.
Syr. tolu. 5ij.	...	...	...	2d.
Aq. ad 5vij.	...	...	...	1d.
	Dispensing-fee	...	2d.	
				<u>8d.</u>

Our subscriber asks if this should be charged 9 $\frac{1}{2}$ d. or 8d. It will be seen that 8d. is the correct charge.

Mist. peps. et bism. (Hewlett) 5iij.	...	4d.
Aq. chlorof. ad 5vj.	...	1d.

Sig.: 5j. t.d.s.

Dispensing-fee	...	2d.
		<u>7d.</u>

The first ingredient costs approximately 10s. 6d. per lb.; this divided by 12=10 $\frac{1}{2}$ d. per oz. for the tariff rate, and 5iij. should be charged 4d. (Our correspondent marked it 3d.)

Potass. iod. 5ij.	...	...	...	3 $\frac{1}{2}$ d.
Liq. arsenicalis mxxx.	...	...	...	$\frac{1}{2}$ d.
Aq. chlorof. ad 5vj.	...	...	...	$\frac{1}{2}$ d.
	Dispensing-fee	...	2d.	
				<u>6<math>\frac{1}{2}</math>d.</u>

The potassium iodide must (for the reason explained) be charged at the ounce rate, and not double the drachm rate (4d.), as was done in this case.

Glycer. bellad. 5iss.	...	...	...	7d.
Sig.: The paint.				
Dispensing-fee	...	2d.		
Poison-bottle	...	1d.		
				<u>10d.</u>

The calculated charge for the belladonna preparation is 6 $\frac{1}{2}$ d., which is as near 7d. as 6 $\frac{1}{2}$ d.

Lotio. plumbi 5vj.	...	...	...	$\frac{1}{2}$ d.
Tr. opii 5ij.	...	...	...	1d.

The lotion.

Poison-bottle	...	1 $\frac{1}{2}$ d.
Dispensing-fee	...	2d.
		<u>5d.</u>

Acid. boric. gr. x.	...	...	...	$\frac{1}{2}$ d.
Spt. rectif. 5iv.	...	...	...	2 $\frac{1}{2}$ d.

Sig.: The ear-drops.

Dispensing-fee	...	2d.
		<u>5d.</u>

Rectified spirit is not on the drug-list, and the pink form should be used by the doctor. The spirit costs 4s. 4d. per pint (*i.e.*, per lb.), giving 4 $\frac{1}{2}$ d. per oz. as the correct charge.

Chloroformi 5iss.	...	...	...	6d.
Lin. belladon. meth. 5iss.	...	...	...	3d.
	Dispensing-fee	...	2d.	
	Poison-bottle	...	1d.	
				<u>1s. 0d.</u>

Chloroform is not in the list. The price is reckoned from

2s. 10d. per lb., the wholesale price of methylated. This divided by 9 gives 4d. as the nearest price per oz.

Lin. capsici	...	...	...	...	3d.
Lin. terebinth.	...	...	...	...	$\frac{1}{2}$ d.
Lin. ammon.	...	...	...	...	$\frac{1}{2}$ d.
Spt. camphoræ aa.	5iv.	...	...	...	2 $\frac{1}{2}$ d.

Sig.: The Liniment.

Dispensing-fee	...	2d.
		<u>8<math>\frac{1}{2}</math>d.</u>

This should have been ordered on a pink form, as two ingredients (lin. capsici and spt. camphoræ) are not on the drug-list. The wholesale price of these is 5s. and 4s. 6d. per lb. respectively, giving 5 $\frac{1}{2}$ d. and 4 $\frac{1}{2}$ d. as the tariff charge per oz., so that 2 $\frac{1}{2}$ d. and 2 $\frac{1}{2}$ d. are the nearest rates for 5iv., and 3d. and 2 $\frac{1}{2}$ d. are accordingly charged. We are asked if a poison-bottle should be supplied, and charged to the local Committee. There is no authority for the supply of poison-bottles at the Committee's expense, except when they are required by statute, but there is nothing to prevent them being supplied on the deposit system, as they are medicine-bottles.

Ung. belladonnae 5ss.	...	...	...	5d.
Sig.: Apply at night.				<u>5d.</u>

The correspondent asks if a poison-container should be charged for here? No. "Poison-bottles" only are provided for, and the Pharmacy Act does not require a container distinguishable by touch in such cases. The ointment can be sent out in a chip-box or other cheap container. We are also asked if 240 or 220 gr. (approximately) should be sent out. To this we reply that 240 gr. (5iv.) should be supplied as ordered, and charged 5d., instead of 4 $\frac{1}{2}$ d., which is the correct charge for 5ss.

Ung. iodoformi (c. paraffin. molle	...	...	8d.
instead of B.P. excipient) 5ij.	...	...	4d.

1s. 0d.

A dispensing-fee is charged, as the ointment had to be made specially. Also note 3 $\frac{1}{2}$ d. per oz. is the tariff price per oz.; this is 4d. per Apothecaries' ounce of 480 grains.

A calico bandage was ordered at the same time, and charged 3d.

#### THE DISPENSING-FEE VARIES.

(1) It is 2d. up to 8 oz. of mixtures, paints, gargles, lotions, liniments, and all liquid preparations named in the drug-list or compounded extemporaneously, and 3d. for over 8 oz., with 2d. extra for an emulsion.

(2) For pills, capsules, powders, tablets, ointments, suppositories, and plasters mentioned in the drug-list there is no dispensing-fee.

(3) For pills, capsules, and tablets not mentioned in the drug-list the fee is 3d. for the first dozen and 1d. per dozen beyond, with the prices of the ingredients.

(4) For powders mixed and not on drug-list a fee of 3d. is allowed up to 4 oz. in bulk, and 4d. for any larger quantity, while 2d. is allowed for mixing or weighing six compounded powders, 3d. for one dozen, and beyond that number 1d. per dozen, with 1d. per dozen extra where cacheted.

(5) For compounding ointments the fee is 3d. for the first ounce or less, 4d. for 1 to 4 oz., and 6d. for 4 to 8 oz.

(6) For suppositories, pessaries, or bougies not on the drug-list the fee to be added to the prices of the ingredients of half a dozen or less is 4d., and 6d. for six to twelve.

(7) For a spread plaster not on the drug-list the fee is 6d.

(8) For blisters a fee of 4d. each is allowed. In the case of blisters and plasters the values of the ingredients and vehicle are to be charged.

We hope we have made it perfectly clear that dispensing fees, except in those cases where they are expressly disallowed (which is only as regards solids in the drug-list), are to be charged in respect to all compounded liquids in the list or not in the list, and in respect to all compounded solids which are not in the list. With the exceptions named the list does not distinguish between extemporaneously compounded and stock preparations; the dispensing fees are paid in respect to both in addition to the prices of the ingredients. We may also remind our readers that the terms are the subject of legal contracts, duly stamped, which are binding upon them and the Insurance Committees.

## Pricing-table for Insurance Dispensing.

Tariff Rate per ounce	Price to be charged for														
	$\frac{1}{4}$ oz. or $\frac{5}{8}$ j. fluid	$\frac{5}{8}$ j. weight	$\frac{1}{2}$ j. fluid	$\frac{5}{8}$ j. weight	$\frac{1}{4}$ oz. or $\frac{5}{8}$ j. fluid	$\frac{5}{8}$ v. weight	$\frac{5}{8}$ v. fluid	$\frac{5}{8}$ v. weight	$\frac{3}{8}$ oz. or $\frac{5}{8}$ v. fluid	$\frac{5}{8}$ v. weight	$\frac{5}{4}$ j. fluid	$\frac{5}{4}$ j. weight	$\frac{5}{8}$ v. weight	$\frac{5}{8}$ v. weight	
0 1	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	
0 1 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	
0 2	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	
0 2 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	
0 3	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	
0 3 $\frac{1}{2}$	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	
0 4	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	
0 4 $\frac{1}{2}$	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	
0 5	0 1 $\frac{1}{2}$	0 1 $\frac{1}{2}$	0 2	0 2	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	
0 5 $\frac{1}{2}$	0 1 $\frac{1}{2}$	0 1 $\frac{1}{2}$	0 2	0 2	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	
0 6	0 1 $\frac{1}{2}$	0 1 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 3	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	
0 6 $\frac{1}{2}$	0 1 $\frac{1}{2}$	0 2	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	
0 7	0 2	0 2	0 2 $\frac{1}{2}$	0 3	0 3 $\frac{1}{2}$	0 4	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	
0 7 $\frac{1}{2}$	0 2	0 2	0 3	0 3	0 4	0 4	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	
0 8	0 2	0 2	0 3	0 3 $\frac{1}{2}$	0 4	0 4 $\frac{1}{2}$	0 5	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	
0 8 $\frac{1}{2}$	0 2	0 2 $\frac{1}{2}$	0 3	0 3 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	
0 9	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 5	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 5 $\frac{1}{2}$	
0 9 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 4	0 5	0 5	0 6	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	
0 10	0 2 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 4	0 4	0 5	0 5 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	
0 10 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 3	0 4	0 4 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 6	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 6 $\frac{1}{2}$	
0 11	0 3	0 3	0 4	0 4 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 6	0 6 $\frac{1}{2}$	0 7	0 7 $\frac{1}{2}$	0 8 $\frac{1}{2}$	0 8 $\frac{1}{2}$	0 8 $\frac{1}{2}$	0 8 $\frac{1}{2}$	0 8 $\frac{1}{2}$	
0 11 $\frac{1}{2}$	0 3	0 3	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 6	0 6 $\frac{1}{2}$	0 7	0 8	0 8 $\frac{1}{2}$	0 9 $\frac{1}{2}$	0 10	0 11	0 11 $\frac{1}{2}$	1 0	
1 0	0 3	0 3 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 5	0 6	0 6 $\frac{1}{2}$	0 7 $\frac{1}{2}$	0 8	0 9 $\frac{1}{2}$	0 10 $\frac{1}{2}$	0 11 $\frac{1}{2}$	0 11 $\frac{1}{2}$	0 11 $\frac{1}{2}$	1 1	
1 1	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 5	0 5 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 7	0 8	0 9	0 10	0 10 $\frac{1}{2}$	0 11 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 2 $\frac{1}{2}$		
1 1 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 5	0 5 $\frac{1}{2}$	0 7	0 7 $\frac{1}{2}$	0 8 $\frac{1}{2}$	0 9 $\frac{1}{2}$	0 10	0 11	1 0	1 1	1 3		
1 2	0 3 $\frac{1}{2}$	0 4	0 5 $\frac{1}{2}$	0 6	0 7	0 8	0 9	0 9 $\frac{1}{2}$	0 10 $\frac{1}{2}$	0 11 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 1 $\frac{1}{2}$	1 3 $\frac{1}{2}$		
1 3	0 4	0 4	0 5 $\frac{1}{2}$	0 6	0 7 $\frac{1}{2}$	0 8	0 9 $\frac{1}{2}$	0 10 $\frac{1}{2}$	0 11 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 1	1 2 $\frac{1}{2}$	1 4 $\frac{1}{2}$	
1 4	0 4	0 4 $\frac{1}{2}$	0 6	0 6 $\frac{1}{2}$	0 8	0 9	0 10	0 11	1 0	1 1	1 1	1 2	1 3 $\frac{1}{2}$	1 5 $\frac{1}{2}$	
1 5	0 4 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 7	0 8 $\frac{1}{2}$	0 9 $\frac{1}{2}$	0 10 $\frac{1}{2}$	0 11 $\frac{1}{2}$	1 1	1 2	1 3	1 4 $\frac{1}{2}$	1 6 $\frac{1}{2}$		
1 6	0 4 $\frac{1}{2}$	0 5	0 7	0 7 $\frac{1}{2}$	0 9	0 10	0 11 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 1 $\frac{1}{2}$	1 3	1 4	1 5 $\frac{1}{2}$	1 7 $\frac{1}{2}$	
1 7 $\frac{1}{2}$	0 5	0 5 $\frac{1}{2}$	0 7 $\frac{1}{2}$	0 8	0 10	0 10 $\frac{1}{2}$	1 0	1 1 $\frac{1}{2}$	1 2 $\frac{1}{2}$	1 4	1 5	1 6 $\frac{1}{2}$	1 9 $\frac{1}{2}$		
1 9	0 5 $\frac{1}{2}$	0 6	0 8	0 8 $\frac{1}{2}$	0 10 $\frac{1}{2}$	0 11 $\frac{1}{2}$	1 1	1 2 $\frac{1}{2}$	1 4	1 5	1 6 $\frac{1}{2}$	1 8	1 11		
1 10 $\frac{1}{2}$	0 5 $\frac{1}{2}$	0 6	0 8 $\frac{1}{2}$	0 9 $\frac{1}{2}$	0 11 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 2	1 3 $\frac{1}{2}$	1 5	1 6 $\frac{1}{2}$	1 7 $\frac{1}{2}$	1 9 $\frac{1}{2}$	2 0 $\frac{1}{2}$		
2 0	0 6	0 6 $\frac{1}{2}$	0 9	0 10	1 0	1 1	1 3	1 4 $\frac{1}{2}$	1 6	1 7 $\frac{1}{2}$	1 9	1 11	2 2 $\frac{1}{2}$		
2 2 $\frac{1}{2}$	0 6 $\frac{1}{2}$	0 7 $\frac{1}{2}$	0 10	0 11	1 1 $\frac{1}{2}$	1 2 $\frac{1}{2}$	1 4 $\frac{1}{2}$	1 6	1 8	1 10	1 11	2 1	2 5		
2 5	0 7 $\frac{1}{2}$	0 8	0 11	1 0	1 2 $\frac{1}{2}$	1 4	1 6	1 8	1 10	2 0	2 1 $\frac{1}{2}$	2 4	2 7 $\frac{1}{2}$		
2 5 $\frac{1}{2}$	0 7 $\frac{1}{2}$	0 8	0 11	1 0	1 3	1 4	1 6 $\frac{1}{2}$	1 8	1 10	2 0 $\frac{1}{2}$	2 1 $\frac{1}{2}$	2 4 $\frac{1}{2}$	2 8 $\frac{1}{2}$		
2 9	0 8 $\frac{1}{2}$	0 9	1 0 $\frac{1}{2}$	1 1 $\frac{1}{2}$	1 4 $\frac{1}{2}$	1 6	1 8 $\frac{1}{2}$	1 10 $\frac{1}{2}$	2 1	2 3	2 5	2 7 $\frac{1}{2}$	3 0		
3 6	0 10 $\frac{1}{2}$	0 11 $\frac{1}{2}$	1 4	1 5 $\frac{1}{2}$	1 9	1 11	2 2 $\frac{1}{2}$	2 5	2 7 $\frac{1}{2}$	2 10 $\frac{1}{2}$	3 1	3 4	3 10		
5 1	1 3 $\frac{1}{2}$	1 4 $\frac{1}{2}$	1 11	2 1	2 6 $\frac{1}{2}$	2 9 $\frac{1}{2}$	3 2	3 5 $\frac{1}{2}$	3 10	4 2	4 5 $\frac{1}{2}$	4 10 $\frac{1}{2}$	5 7		
5 11 $\frac{1}{2}$	1 6	1 7 $\frac{1}{2}$	2 3	2 5 $\frac{1}{2}$	3 0	3 3	3 10 $\frac{1}{2}$	4 1	4 5 $\frac{1}{2}$	4 10 $\frac{1}{2}$	5 2 $\frac{1}{2}$	5 8 $\frac{1}{2}$	6 6 $\frac{1}{2}$		
6 8	1 8	1 10	2 6	2 9	3 4	3 8	4 2	4 7	5 0	5 5 $\frac{1}{2}$	5 10	6 5	7 4		

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This table with explanatory matter is being published on a card. See p. 115.

## Linseed Oil.

IN our issue of August 10 (index folio 257) last year we dealt in detail with the position of linseed oil, pointing out the chief factors which led to the abnormally and unprecedentedly high level of values since 1909. We then suggested that market conditions would be gradually restored to the normal, regardless of the partial failure of the previous Argentine crop. These expectations have since been fully realised, thanks to the indications of a much greater crop yield in North America. The persistent fall in prices has also been considerably accelerated during the last few months by the excellent progress of the River Plate linseed crop, now becoming available, the yield of which promises to surpass all previous records. The United States—whose importations from this country practically ceased last year—is now no longer dependent upon foreign seed to cover its heavy domestic requirements; in fact, the U.S.A. is now a large exporter of seed and oil to Europe, thus making the decline inevitable. This drastic change in market conditions was exceedingly welcome to consuming trades, where the use of linseed oil had been seriously checked during the protracted period of "famine" prices. The state of the crushing industry is now being fast restored to the normal in consequence of a great abundance of supplies, such as was undreamt of a year ago. The range of values during 1912 for both linseed and the oil product has been unusually wide, and unprecedentedly so in the case of linseed oil, amounting to as much as 21l. 15s. per ton, as may be seen from the figures below, which also give the two extreme points touched each year both for seed and oil in London from 1893 to 1912 inclusive :

Year	Calcutta Linseed per Qr.		Range per Qr.	Linseed Oil per Ton		Range per Ton
	Highest	Lowest		Highest	Lowest	
	s. d.	s. d.		£ s. d.	£ s. d.	
1893 ...	45 9	38 9	7 0	22 15 0	18 15 0	4 0 0
1894 ...	41 0	37 2	4 2	21 10 0	19 10 0	2 0 0
1895 ...	38 3	35 0	3 3	22 0 0	19 5 0	2 15 0
1896 ...	36 0	29 0	7 0	20 5 0	15 5 0	5 0 0
1897 ...	35 0	30 9	4 3	17 0 0	13 15 0	3 5 0
1898 ...	37 6	34 0	3 6	18 10 0	15 5 0	3 5 0
1899 ...	46 5	34 9	11 8	24 10 0	16 10 0	8 0 0
1900 ...	61 2	48 2	13 0	35 10 0	22 0 0	13 10 0
1901 ...	56 10	46 0	10 10	34 0 0	21 15 0	12 5 0
1902 ...	57 8	42 4	15 4	33 5 0	21 10 0	11 15 0
1903 ...	48 4	34 10 <sub>2</sub>	13 5 <sub>2</sub>	26 15 0	17 5 0	8 10 0
1904 ...	35 9	29 0	6 9	18 5 0	13 15 0	4 10 0
1905 ...	41 7 <sub>2</sub>	32 2	9 5 <sub>2</sub>	20 15 0	14 10 0	6 5 0
1906 ...	45 10 <sub>2</sub>	40 9	5 1 <sub>2</sub>	23 5 0	19 0 0	4 5 0
1907 ...	46 9	41 3	5 6 <sub>2</sub>	28 0 0	21 5 0	6 15 0
1908 ...	46 10 <sub>2</sub>	43 6	3 4 <sub>2</sub>	24 0 0	20 15 0	3 5 0
1909 ...	58 9	44 0	14 9	32 0 0	20 10 0	11 10 0
1910 ...	79 0	50 9	23 9	46 5 0	31 10 0	14 15 0
1911 ...	77 9	64 0	13 9	51 10 0	33 10 0	18 0 0
1912 ...	72 9	48 4	24 5	47 0 0	25 5 0	21 15 0

Within the last few weeks the price of linseed oil has again dropped considerably, to about 23l. on the spot, or well over 2l. below the lowest of last year; and it will be seen from the above table that that figure is only 2l. 10s. above the lowest recorded in 1909, when conditions were approximating the normal. In that year supplies were still pretty abundant, consequent upon the large 1908 crop in the Argentina, amounting to over one million tons, but towards the end of 1909 the general crop outlook experienced a rather startling change, which tended to pave the way for the extraordinary rise during a period of well over two years. This rise culminated in 1911, with linseed oil touching 51l. 10s., constituting with 13l. 15s. recorded in 1904 the two extreme figures seen within the last twenty years.

The distribution of the world's shipments is shown in

the table below, and gives an idea of the contraction of supplies in recent years compared with 1908 :

Year	World's Seed Shipments Tons	Distribution	
		U.K. Tons	Cont. & U.S.A. Tons
1903 ...	1,178,150	335,954	592,196
1904 ...	1,523,426	505,519	1,017,907
1905 ...	1,110,773	345,412	795,361
1906 ...	1,080,883	286,140	794,743
1907 ...	1,368,311	372,537	995,774
1908 ...	1,432,186	382,169	1,050,017
1909 ...	1,293,836	303,237	990,599
1910 ...	1,153,923	236,066	917,857
1911 ...	1,101,690	243,338	858,352
1912 ...	1,127,424	257,294	870,130

While this season's Argentine exportable surplus promises to be about double that of each of the previous two years, it is well to bear in mind that practically the whole of this will be diverted to Europe, as well as the great bulk of the Indian supplies, apart from a considerable tonnage from Russia. Another factor is that, whereas the United States imported heavy quantities of Plate and Indian seed in the last three years, she has recently begun to ship pretty freely to Europe. The production of linseed for the last ten years is returned as follows :

Year	Argentina	India	U.S.A.	Canada	Russia
	Tons	Tons	Tons	Tons	Tons
1903 ...	937,601	481,367	682,513	21,100	461,314
1904 ...	740,000	571,832	585,013	13,388	471,836
1905 ...	591,912	347,400	711,944	18,342	421,000
1906 ...	825,764	353,400	626,500	25,588	540,500
1907 ...	110,710	425,200	646,275	43,301	550,590
1908 ...	1,048,852	163,200	645,125	79,133	500,339
1909 ...	716,515	297,700	487,817	120,829	558,360
1910 ...	595,000	527,600	317,950	100,974	650,000
1911 ...	572,000	563,600	484,250	196,675	670,000
1912 ...	1,130,000	641,200	701,825	528,505	650,000

There is thus, according to the figures given above for 1912 (which in the case of Argentina and Russia are approximate), an unprecedented abundance of supplies to be dealt with this season, and in spite of the sensational break in prices for some time past, it may be assumed that as supplies increase prices will yet decline further. The only point of uncertainty in the crop situation at present is India, where the prospects are fairly encouraging, despite the want of further rains. On the recent fall a large business has been put through in linseed oil.

## The History of Chemistry.

THIS fascinating subject has not up to the present been exhaustively treated by any English author since Dr. Thomas Thomson's day (1830). Sir Thomas Thorpe, in his "Essays on Historical Chemistry," has treated in his inimitable way periods and biographies, but, as he states, the work has "no pretensions to be considered a history of chemistry." Two small volumes by the same author and entitled "History of Chemistry" were published two years ago, but these only outline the subject. Chemical history has been more adequately treated by German authors. Kopp's "Geschichte der Chemie," published in the 'forties, and Gerding's "Geschichte der Chemie," some twenty years later, are examples, but the best known work of the kind is probably Meyer's, an English translation of which by Dr. McGowan is published by Macmillan. In this the development of chemical knowledge and of the doctrines of chemistry are traced, and incidentally biographical particulars of famous chemists are given. Dr. Leonard Dobbin's excellent translation of Ladenburg's work deals with chemistry since the time of Lavoisier. "In earlier times the study of pharmacy was, in truth, the only road to that of pure

chemistry, and this is why the most eminent chemists from the second half of the eighteenth century until well on in the nineteenth century came from the pharmaceutical school." We quote this from Meyer as it is a reminder that histories of pharmacy, such as Wootton's in English and Schelenz's in German, deal largely with the development of chemistry; that science being in its early days synonymous with pharmacy or, to put it in another way, early chemistry dealt largely with the application of the science to medicine. These remarks are prompted by the publication of "A History of Chemistry from the Earliest Times till the Present Day," by the late Dr. J. Campbell Brown (Churchill, 10s. 6d.). Professor Brown, who died in 1910, left behind him the manuscript of a series of lectures on the history of chemistry which he delivered as part of his chemical course at the Liverpool University. It had been his intention, when he could find the necessary leisure, to revise these for publication. The task was never completed, however, and it was left to his cousin, Mr. H. H. Brown, to collate the various lectures and notes and present them in the form in which they are now published. Professor Brown's chief assistant (Mr. W. H. Roberts) and his private secretary (Mr. J. F. Haws) have also rendered assistance in preparing the work for the press. The book is divided into two parts, the smaller portion dealing with ancient history and the second with the period beginning with Basil Valentine and ending with an account of radio-active elements. Most historians find great difficulty in dealing with the earliest times, the origins being much obscured, but Professor Brown has joined together in an ingenious manner the principal links in the chain from the Chaldean to the Roman period. Reference is made to Thomson's history and Hoefer's history in French, published in 1866, which shows that the work of earlier authors was familiar to him. The work has numerous illustrations, the earlier ones being reproductions of Egyptian pictures showing chemical operations, such as were referred to by Sir James Dewar in his Christmas lectures at the Royal Institution. The recipes given in the chapter on the philosopher's stone are of interest, as showing the unbounded assurance of the old alchemists and the care which the author took to probe to the bottom the scanty particulars of a sane nature that were available.

## B.P. Weights and Measures.

THE British Pharmacopœia authorities have a reputation for sanity in the matter of weights and measures. The reputation is now in peril. We reported a fortnight ago that the Imperial system is threatened so far as the text of the work is concerned, and we have since learnt that the metric system is not beyond the designs of the tinkerers, inasmuch as representations have been made to the Pharmacopœia Committee (not the Committee of Reference in Pharmacy) that the description "Cubic centimetre" should be replaced by the term "mil." It is difficult to conceive that the suggestion should be taken seriously, or that any comment is necessary, nevertheless it appears to be desirable to point out the objections to the employment of the term "mil" in pharmacy and medicine—it is not used by professional chemists. These objections fall under two heads:

1. The danger.
2. The confusion which will result from the employment of a word which already has several meanings.

As to the danger, abbreviations for "mil" would probably be employed by medical men in writing prescriptions, and

the likeliest contraction would be "m" because it is the shortest. This contraction is in established use as the sign for *minim*, an Imperial measure of volume adopted in all the editions of the British Pharmacopœia. If, therefore, the contraction were used in prescriptions as a representation of "mil," a patient would obtain one-fifteenth of the medicament required. This would be serious in most cases. American pharmacists of the first rank object to the term, e.g.

"The Committee of Revision of the National Formulary have decided that the term 'mil' is an undesirable substitute for the abbreviation e.c. in the new edition of that work."—C. & D., August 26, 1911, p. 353.

"Mil" can very easily be mistaken for the well-known milligramme.—Rabenheimer, "National Druggist," August 1911.

As to the second objection—viz., that it would lead to confusion—we give a few instances of the use of the word and of words with the same pronunciation:

### A. As unit of length:

"1 mil=10<sup>-3</sup> in."—Kay and Laby's "Physical and Chemical Constants," 1911.

"A circular mil is a unit of area for measuring cross-sections of wires, tubes, and rods, being the area of a circle whose diameter is 1 mil."—Murray's "Historical Oxford Dictionary."

"The Imperial Standard Wire Gauge, which has been sanctioned by the Board of Trade, is one that was formulated by J. Latimer Clark. Incidentally, one of its recommendations is that it differs from pre-existing gauges scarcely more than they differ among themselves, and it is based on a rational system (basis being 1 mil). No. 7/0, the largest size, is 0.50 in. (500 mils) in diameter, and the smallest, No. 50, is 0.001 in. (1 mil) in diameter."—Encyclopædia Britannica," vol. xxviii., p. 739.

### B. As unit of currency:

"Mil, a money of account in the United States, being one-thousandth of a dollar (one-tenth of a cent)."—Standard Dictionary." (Possibly employed in Canada also.)

"The two principal schemes of decimalisation are the pound and mil schemes and the penny and ten-franc scheme."—Jevons' "Money," xiv. 176.

"It is proposed that the smallest coin, one thousand to the pound, shall be called the mil."—Humphrey's "Coinage of the British Empire," p. 149.

Hong Kong coins include the bronze "mill."

### C. As measure of length:

"Mil" is a Danish mile (4,680 miles).

"Mil" in Turkey is 1,000 archins.

### D. Other uses:

"Mill" is "a thousandth part of *anything*."—Standard Dictionary."

"Per mil" = per thousand.—Murray's "Dictionary."

"Mil" or "mille" in card games is a counter representing ten "fishes" or "points."

"Mil," synonym for millet seed, which may possibly have been employed as small weights. It is also given in old works as synonym for "milium solis."

"Mil," a town in Holland.

As far as British pharmacy is concerned the term "mil" has signally failed to catch on, and it is to be hoped that the Pharmacopœia Committee will not be deluded into believing the contrary on account of the use of the term in a book to which the Pharmaceutical Society of Great Britain has given its authority.

## Liquorice-extract.

THE latest contribution to this subject is a paper by Mr. P. A. Houseman in the "American Journal of Pharmacy" (December 1912, pp. 531-546), which contains details of researches on the distribution of resins and bitter principles in liquorice-root with a view to eventually incorporating such work in the methods for analytical valuation of the root. The author also freely criticises other workers. For instance, he states that the results for sugars obtained by Mr. E. J. Parry, especially for those before inversion, are decidedly too high, either from using too little lead acetate, or more probably from failing to

remove the precipitate of lead gums, lead glycyrrhizinate, etc., before removing excess of lead with aluminium sulphate. This remark hardly receives confirmation from his results on laboratory-made extracts, which are given in comparison with those published by Parry in this Journal (1910, I., 22). The figures relate to percentage of "total sugars" :

Houseman	Parry
Russia ... ... 9.56	Italian ... 14.5-15.5
Syrian ... ... 19.81	Anatolian ... 12.9-13.9
Anatolian ... ... 16.89	Spanish ... 14.45-15.08
Turk-Arabian ... ... 14.71	
Italian ... ... 17.18	
Spanish ... ... 9.37	

In reference to the question of the amount of sugars before inversion, the obvious explanation is that many juices are prepared at comparatively high temperatures, resulting in partial hydrolysis of glycyrrhizin and the formation of substances capable of reducing Fehling's solution. These for analytical purposes must be classed as "sugars." The author states that his results disprove the "assertion by Parry that in a pure liquorice-juice the matter insoluble in dilute ammonia should not exceed 6 per cent." Abnormal samples, prepared without careful filtration, may contain more than this amount; but Telle, in an exhaustive paper ("Ann. des Fals.", 1911, No. 27, p. 3), says in reference to matter insoluble in dilute ammonia :

"Pure juices only have a feeble residue; even if they have not been well filtered, this residue should not exceed 5 to 6 per cent. If this amount is exceeded the juice should be suspected and a microscopic examination should reveal the nature of the undissolved matter."

Thus Telle agrees with Parry in regard to this figure. Houseman fails to confirm the action of Fehling's solution on the sugars and on glycyrrhizin as carried out by Eriksson. He concludes : "It is evident that the procedure given by Eriksson for the quantitative estimation of the sweet substances of liquorice root and extract is not accurate." A careful examination of two papers leads, in our opinion, the impartial reader to regard Eriksson's results as at least as trustworthy as those of Houseman, and the latter cannot be regarded as displacing the former.

The new work on liquorice is confined to the extraction of ten types of roots with petroleum ether, chloroform, and alcohol. It is noteworthy that the extract of the root (dried *in vacuo*) made with 95-per-cent. alcohol contains no glycyrrhizin. These extracts were treated with dry ether to dissolve resins, etc. The difference between the various kinds of roots is less than might have been expected. Analyses of extracts made with 50-per-cent. alcohol are also given. Estimations of the glycyrrhizin in the liquors before evaporation are stated to show that loss of glycyrrhizin (about one-third) occurs partly during extraction and partly during evaporation. This loss is presumably due to decomposition. The author, in conclusion, remarks that he intends to "transfer the knowledge gained of the constituents of the root to improving the method of analysis of the extract, so as to include [? exclude.—Ed.] some of the undesirable constituents thereof." If the author is successful in this direction he will have achieved most useful work in a field which presents much difficulty to analysts.

#### Select Committee on Patent Medicines.

As this issue is being printed before the meeting of this Select Committee on Thursday, January 23, we shall reserve our report of the evidence until next issue, but a statement in regard to the proceedings will be printed in the Coloured Supplement of this issue.

#### Manufacture of Orange-wine.

It has come to our notice that some chemists who have for many years been in the habit of manufacturing orange-wine for the purpose of using it in making quinine-wine according to the British Pharmacopoeia formula, have continued to do so notwithstanding the provisions of the Revenue Act, 1906, Section 7. It appears to be assumed that the terms of the Act which regulate the manufacture for sale have not been understood to refer to quinine-wine. They do, however, as the wine is ultimately sold in the form of quinine-wine, and a licence for the manufacture, costing five guineas per annum, is necessary. We may at the same time note that it is an offence against the Sale of Food and Drugs Acts and the Merchandise Marks Act to sell as orange-wine a compound made of weak syrup and tincture of orange, because the British Pharmacopoeia requires orange-wine to be "made by the fermentation of a saccharine solution to which fresh bitter-orange peel has been added."

#### POISONING FATALITIES.

SEVEN deaths due to the effects of poison have been reported up to Wednesday night of this week. Two of these were by misadventure.

*Carbolic Acid.*—"Suicide while of unsound mind owing to provocation caused by her husband," was the verdict of a Battersea jury at an inquest on Elizabeth Cobb (32), wife of a general labourer, who died from the effects of carbolic-acid poisoning.

*Corrosive Poisoning.*—Albert Edward Curry committed suicide at Gosport by taking some corrosive fluid.

*Laudanum.*—The death at Stowmarket of Spencer Harry Sutton (53), an invalid, was due to heart failure caused by an overdose of this drug.—Thomas Cockeram (65), builder, Houghton, poisoned himself with laudanum.

*Lead.*—At the inquiry into the death of Annie Wilkinson (41), the wife of a Spennymoor miner, Dr. Kane said deceased told him she had been taking lead-pills made up by herself as an abortifacient. She had taken fifty of them. In his opinion, death was due to lead-poisoning accelerated by abortion.

*Prussic Acid.*—A Birkenhead coroner's jury inquired on January 21 into the death of John G. Faulkner (21), assistant to Mr. Gordon, chemist, Duke Street, Birkenhead, whose body was found in a field on the outskirts of Birkenhead. It was stated that deceased had recently sat for an examination at Liverpool and failed. Dr. Allen, of the Borough Hospital, certified that death was due to prussic-acid poisoning, and Mr. Gordon stated that the young man had been engaged on Saturday morning in making up a prescription containing that poison, and that the bottle could not afterwards be found. An open verdict was returned.

*Weed-killer.*—A verdict of "Accidental death" was returned at Bootle at the inquest on Sampson Gannon, of Breeze Hill, Bootle, a member of the Liverpool City Council. Dr. Geo. Oldershaw said the weed-killer contained mercury perchloride.

#### INSURANCE DISPENSING IN NORTH LONDON.

Chemists at Crouch End are very busy with Insurance dispensing, some of them having twenty scripts a day. Finchley and Highgate average something under a dozen. Much distress of mind is being caused by the non-compliance of the doctors with the regulations, but they are only minor matters which will adjust themselves. Tr. aurantii, lanoline, and chloroform are not in the tariff, and should be written on pink forms, but are not. A throat-brush is not an appliance provided free. If a catheter is provided, why not a ring pessary? Sacch. ust. has been ordered at Finchley, and this ought to be on a pink form. There has been a great influx of doctors to panels during the last few days. All Highgate doctors are now on; there were none before the B.M.A. meeting.

"THE CHEMIST-OPTICIAN" is the first book which chemists should read who want to know how to make money off spectacles and eyeglasses. Post free from the C. & D. Office, 42 Cannon Street, London, E.C., for 4s. 3d., or from any wholesale house with order for 4s.

## REVIEWS.

*Income Tax.* By THOMAS C. JARVIS, B.A., LL.B., of the Middle Temple, Barrister-at-Law. 10 in. by 6 in. Price 6s. (London: Effingham Wilson, 54 Threadneedle Street, E.C.)

BESIDES containing a clear exposition of the law generally with a profuse reference to cases, this book will be of much practical assistance in making returns of income and in dealing with other matters arising out of assessments to income tax. The second half of the volume is devoted to official forms, which are set out in full, explained, and filled up by way of example. To the work is prefixed a short article on direct and indirect taxation.

*The People's Medical Guide: Points for the Patient, Notes for the Nurse, Matter for the Medical Adviser, Succour for the Sufferer, Precepts for the Public.* By JOHN GRIMSHAW, M.D., etc. 8½ in. by 5½ in. Pp. xx + 839. 8s. 6d. net. (London: J. & A. Churchill.)

Two sections of medicine, one of surgery, another of diseases of special organs, a fifth dealing with skin-diseases, the sixth with food and feeding, and the last with physical exercises, constitute the contents of this remarkable yet interesting and instructive book. There is much in it that would have been better left unsaid; the author is occasionally flippant and opinionative, but these characteristics will be enjoyed by most chemists. If the book had been designed for such of them as want a bigger book than "Diseases and Remedies" the author could not have done better, but we consider that as a "People's Guide" it is too bulky and diffuse. Moreover, we question the wisdom of putting so much about the human frame and its disorders in the hands of the laity. In certain classes of diseases the less sufferers know about causes and the significance of symptoms the better.

*Spectroscopy.* By E. C. C. BALY, F.R.S. New edit. 7½ in. by 4¾ in. Pp. 687, with 180 illustrations. 12s. 6d. (London: Longmans, Green & Co.)

THIS work forms one of the series of text-books on Physical Chemistry edited by Sir William Ramsay, K.C.B., F.R.S. It is written by a scientist in love with his subject, who has been able to present the practical side of this fascinating and rapidly extending science within reasonable dimensions. A valuable *résumé* is included of the great advances made during the last six years or so. The historical introduction (fifty pages) is followed by a chapter on the slit, prism, and lenses. Then the prism spectroscope, diffraction grating, and interference methods in spectroscopy are dealt with, first from a theoretical standpoint and then in practice. As an example of the wealth of practical detail the chapter on methods of illumination (fifty-seven pages) may be mentioned. A new theory by the author which affords a rational explanation on a basis of residual chemical affinities of absorption of light by substances is detailed on p. 487 *et seq.*, and is interesting as it provides a simple explanation for fluorescence, phosphorescence, thermoluminescence, as well as absorption spectra. The chapters on the Zeeman effect and series of lines in spectra indicate how the fundamental principles underlying the formation of spectra are being gradually worked out. The book is one which ought to be included in the library of anyone interested in spectroscopy.

*Celluloid: Its Manufacture, Applications, and Substitutes.* By MASSELON, ROBERTS and CILLARD. Translated from the French by Herbert H. Hodgson, M.A., B.Sc., Ph.D. 9½ in. by 6 in. Pp. 376. 25s. net. (London: Charles Griffin & Co., Ltd., Exeter Street, Strand.)

NOT much has been published on celluloid for the reason that the manufacture is confined to a few firms, and the processes are mainly secret. Two small volumes, one in French and the other in German, have appeared, the last-named having been translated into English. For this reason one naturally looks into any new work on celluloid, the use of which grows enormously year by year,

for evidences of a practical character, and it does not take long to decide that the present volume is the best of its kind that has been published. The properties and manufacture of nitro-cellulose are first dealt with, this involving the staining, rolling, compression, cutting, and dressing of celluloid. The organisation of the celluloid factory next claims attention, and there follow the analytical processes required in the factory and mechanical tests for celluloid. The applications of celluloid are dealt with in the second part of the book, not only of articles fashioned in that substance but celluloid lacquers and decoration processes. The final part is concerned with uninflammable celluloids, which is an important direction into which the manufacture is tending at the present time. The book is illustrated by seven plates and many other blocks and diagrams.

*A Handbook of Sugar Analysis: A Practical and Descriptive Treatise for Use in Research, Technical, and Control Laboratories.* By C. A. BROWNE, Ph.D., Chemist in Charge of the New York Sugar Trade Laboratory. 9½ in. by 6½ in. Pp. vi + 785 + tables 101 + index lxxxi. 25s. 6d. (London: Chapman & Hall, Ltd.)

THE author has brought together a vast amount of important detail regarding the examination of sugar-containing materials, but the most valuable feature is the manner in which the limitations of each process are amply indicated. After reading the thorough review of the many factors which affect the optical rotation of sugars, the saccharimeter itself, or the copper-reducing power of saccharides, one can quite agree with the author that the most important fact the student of sugar analysis must acquire is the knowledge of the methods of limitations. Part I. of the work deals with physical and chemical methods of sugar analysis, Part II. consisting practically of a series of monographs of the specific sugars. The appendix of numerous sugar tables makes the volume doubly valuable. The important subject of sampling is dealt with in Chapter I., moisture-determination and densimetric methods of analysis following. Chapter IV. begins a series in which the principles and use of the refractometer and polarimeter are dealt with. The principles of these instruments, and the precautions and corrections which must be observed cover many pages, but the explanations are invariably easily followed, while the diagrams and reproductions of instruments are models of lucidity. The description of the various types of polarimeters or saccharimeters is especially valuable to anyone considering the question of purchasing one of these expensive instruments. The various methods used for identification of sugars are detailed, while reduction methods of determining sugars are also fully gone into, tables worked out for each method being given in the appendix. The use of clarifying agents is also carefully treated. An interesting feature is a complete description of the Lintner method of determining the diastatic power of malt and malt-extract. The work is one which anyone who has much sugar-analysis to do cannot afford to be without.

*Les Pharmaciens Militaires Français.* By A. BALLAND. 8vo. Pp. 436. 15 francs. (Paris: L. Fournier.)

THIS book contains the result of patient and intelligent efforts of a quarter of a century. While still occupying his official post at the Invalides, the author, an eminent French military pharmacist, began to spend his leisure hours in the study of the history of his profession. His interesting articles on this subject have been a feature of certain French pharmaceutical journals for long years past, and have from time to time been noted in our columns of French News. Since his retirement from active duties M. Balland has brought his researches into one volume, with additions, corrections, and improvements. To admirers of the great military nation which was the first to organise army pharmacy, to the pharmacist curious to study the military side of his profession, and even to the historian, the volume has a peculiar interest. The history of French army pharmacy from 1630 to 1911 is sketched in the introductory chapter. Biographies follow of the

pharmaceutical "General Inspectors," from Bayen and Parmentier to Marty, Burcker, Masson, and Röser, four familiar figures to modern Parisian pharmacists. In Chapter III. the "Head Army Pharmacists" are dealt with in chronological order, war by war; and what our French friends so aptly call the "victims of duty," the pharmacists who have been killed, wounded, or who died of epidemics during campaigns, are dealt with in the fourth chapter. The military teaching hospitals, the Val-de-Grâce Hospital, the old Strasburg School of Military Hygiene, and the Central Military Pharmacy, each forms the subject of a chapter. Finally, we have various documents, a sketch of the "Situation of Military Pharmacy on October 15, 1912," and a list of reference works and names. Such a book is, of course, full of novel and picturesque odds and ends. Here, for instance, is the pharmaceutical organisation of the "Expeditionary English Army" of 1804. Napoleon had calculated that one-eighth of the invaders might be placed *hors de combat*, and provided for twenty hospitals, each for 700 to 800 men. One "chief" and four "principal" pharmacists ranked beside an equal number of "chief" and "principal" doctors and surgeons. Twenty first-class pharmacists, twenty second-class, and forty third-class completed the corps. M. Balland has unearthed the Royal warrant appointing the first apothecary-major at the Invalides, which runs thus :

"Today, the first of the month of March one thousand seven hundred twenty-one, the King being at Paris, and desiring for the well-being of the Officers, Soldiers, Cavaliers, and Dragoons of the Royal Hôtel des Invalides, that there be an Apothecary-Major to serve according to his profession those of the said Officers, Soldiers, Cavaliers, and Dragoons, who shall have fallen ill; and His Majesty having recognised the proofs of capacity and experience in Pharmacy of the Sieur Hiérosme Bardon, as well as of his faithfulness and affection in his service, His Majesty, in accordance with M. le Duc d'Orléans, Regent, has retained, commanded and placed him in the post of Apothecary-Major," etc.

Bardon, adds M. Balland, later on founded a retail pharmacy in the Rue du Bac, which exists to this day. A delicious bit of irony is Coste's protest against the reduction of the number of military apothecaries in 1788 :

"As it is not possible to abolish sickness by Ministerial Decree, and as doctors and surgeons have not hitherto been able to cure patients without the aid of medicines, the proscription of the apothecaries who have to prepare remedies was for me a chimera as absurd as the abolition of the doctors and surgeons who prescribe them. . . . English pharmacy is cited. It is true it is very portable, but it consists of powders, salts, and elixirs. In their hospitals, everything except the essential remedies—even diet—is left to the fancy of the patients. With us, where these accessories have more relative importance to the national habits and physical constitution of the French, pharmacy includes more details, demands larger premises, exacts in each hospital artists specially consecrated to its service."

The number of pharmacists in the "armée active" has since 1898 been 115; but since the Moroccan expedition the general and medical staff have alike recognised that there has been undue reduction and demanded an increase of their number. The reserve includes 1,230 pharmacists (1,011 second-class and 195 first-class assistant majors, sixteen majors, and eight "principals"), while the "Terriers" boast 883.

## SCIENTIFIC PROGRESS.

Temperatures under this heading are on the Centigrade scale.

**Propaesin.**—This body is the propyl ester of para-aminobenzoic acid, melting at 73°. It is a local anaesthetic for eczema and similar troubles.

**Acitrin.**—This new remedy is the ethyl ester of phenyl-cinchoninic acid. It is a yellow, tasteless, and odourless powder, melting at 59°. It is a nerve-sedative, and is given in cases of neuralgia.

**Hyperol.**—This substance, described as "hydrogen peroxide in solid form," appears to be a compound of urea and hydrogen peroxide, with a trace of some organic acid. If 1 part be dissolved in 10 parts of water, the resulting solution is a 3-per-cent. solution of hydrogen peroxide ready for use. A similar preparation has also been placed upon

the market under the name of ortizone. The compound has the constitution  $\text{NH}_2\text{CONH}_2\text{H}_2\text{O}_2$ .

**Carpillin** is a new jaborandi alkaloid extracted by Leger and Roques ("Comptes Rendus," 155, 1088) from the leaves of *Pilocarpus microphyllus*, to which reference has already been made in our French News. It forms anhydrous colourless prisms, melting at 184°-185°, soluble in chloroform and benzol, almost insoluble in ether, and slightly soluble in hot water, from which it crystallises without any water of crystallisation. It is dextrorotatory,  $[\alpha]_D = +24^\circ$ . Its formula is  $\text{C}_{10}\text{H}_{16}\text{N}_2\text{O}_2$ . Carpillin is a monoacid base of a lactic nature, being converted into carpillinic acid by the action of alkalis. It contains one hydroxyl group, and yields a mono-benzoate. It is only slightly toxic.

**Burmese Lemongrass Oils.**—Further details are given in an article in the "Perfumery and Essential Oil Record" for January of the Burmese oils distilled from *Cymbopogon* species. The distillate examined, which was of large bulk, had the following constants: specific gravity, 0.893; citral percentage, 74 per cent. The oil is soluble in 90-per-cent. alcohol with slight opalescence, although not clearly soluble in 70-per-cent. alcohol. The oil distilled from the so-called "Scented" species is evidently a distinct type, closely allied to Java citronella oil. The characters of two specimens were: specific gravity, 0.896 and 0.893 per cent.; total acetylisable constituents (citronellal and geraniol), 101.5 and 91.5 per cent.

**Arachis-oil Estimation.**—N. Evers ("Analyst," No. 440, p. 487) advocates the following modification of Bellier's process for the detection of arachis oil in olive oil as a means of estimating the amount of arachis oil used for purposes of adulteration: Weigh out 5 grams of the oil into a saponification-flask, add 25 c.c. of alcoholic potash (80 grams potash dissolved in 80 c.c. water and diluted to a litre with 90-per-cent. alcohol), and saponify for about five minutes under a reflux condenser. To the hot soap solution add 7.5 c.c. of acetic acid (1 volume of glacial acetic acid to 2 volumes of water) and 100 c.c. of 70-per-cent. alcohol containing 1 per cent. (by volume) of hydrochloric acid, and cool to 12° to 14° C. for an hour. Filter, and wash with 70-per-cent. alcohol containing 1 per cent. HCl at 17° to 19° C., the precipitate being broken up occasionally by means of a platinum wire bent into a loop. The washing is continued until the filtrate gives no turbidity with water, the washings being measured. Dissolve the precipitate, according to its bulk, in 25 to 70 c.c. of hot 90-per-cent. alcohol, and cool to a fixed temperature between 15° and 20° C. If crystals appear in any quantity, allow to stand at this temperature for one to three hours, filter, wash with a measured volume of 90-per-cent. alcohol (about half the volume used for crystallisation), and finally with 50 c.c. of 70-per-cent. alcohol. Wash the crystals with warm ether into a weighed flask, distil off the ether, dry at 100° C., and weigh. If the melting-point is lower than 71° C., recrystallise from 90-per-cent. alcohol. Add the correction for the solubility in 90-per-cent. alcohol, as in Renard's process, from the table given by Archibutt (Allen's "Commercial Organic Analysis," 4th ed., vol. ii., p. 94), and also for the total volume of 70-per-cent. alcohol used in precipitating and washing (including the 100 c.c. added in the first instance) from the following table:

Weight of Acids (corrected for 90-per- cent. alcohol)	Correction per 100 c.c. 70-per-cent. Alcohol		
	M.p. 71° C.	M.p. 72° C.	M.p. 73° C.
Above 0.10 gram . . .	0.013 grm.	0.018 grm.	0.006 grm.
0.08-0.10 " . . .	0.011 "	0.007 "	0.006 "
0.05-0.08 " . . .	0.009 "	0.007 "	0.005 "
0.02-0.05 " . . .	0.007 "	0.006 "	0.003 "
Less than 0.02 gram . . .	0.016 "	0.005 "	0.004 "
Factor for conversion of percentage of fatty acids to arachis oil . . .	17	20	22

If there are no crystals from 90-per-cent. alcohol, or if they are only in very small amount, add a sufficient quantity of water to reduce the strength of the alcohol to 70 per cent. (31 c.c. wafer to 100 c.c. 90-per-cent. alcohol). Crystallise at 17° to 19° C. for an hour, filter, wash with 70-per-cent. alcohol, and weigh as before, adding the correction for the 70-per-cent. alcohol from the above table. If the melting-point is below 71° C., recrystallise from a small quantity of 90-per-cent. alcohol, or again from 70-per-cent. alcohol.

## MEDICAL GLEANINGS.

### Tuberculous Coughs.

THE TREATMENT, says Robin ("Journal des Praticiens"), varies according to the variety. In pharyngeal cough the patient should use the following gargle, warm :

$\beta$ -naphthol	...	...	...	gr. iii.
Sodii perboratis	...	...	...	5ss.
Aq. menthae piperite	...	...	...	5vij.
Aquam ad	...	...	...	5xxxv.

Misce. Fiat gargarisma.

If any inflammatory condition is present, the pharynx should be swabbed with the following :

Cocainæ	...	...	...	gr. ij.
Resorcin	...	...	...	gr. xv.
Glycerini	...	...	...	5j.

Misce. Fiat collutorium.

In the case of pharyngeal irritation, the following gargle should be used :

Sodii salicylatis	...	...	...	5vj.
Phenazoni	...	...	...	5j.
Aq. laurocerasi,	...	...	...	
Aq. aurantii florum	...	aa.	...	5ss.
Glycerini	...	...	...	5liss.
Aquam destillatum ad	...	...	...	5xxxv.

Misce. Fiat gargarisma.

The laryngeal cough calls for the attention of the specialist. In the meantime applications may be made of orthoform powder, Peru balsam solution, gomenol-water spray, or an infusion of coca-leaves with carbonate of potash. The following draught may be ordered :

Tinct. bryoniae	...	...	...	mx.
Tinct. aconiti	...	...	...	mxx.
Tinct. belladonnæ	...	...	...	mx.
Syr. opii	...	...	...	5j.
Aquaæ	...	...	...	5iv.

Misce. Fiat linctus.

The tracheal cough requires expectorants and a mixture, such as the following, to render the tenacious sputum more fluid :

Terpini hydratis,	...	...	...	
Pulv. ipecacuanhae co.	...	aa.	gr. ij.	

Misce. Fiat pulvis.

Signe : "To be taken in a cachet two or three times a day."

Or the following :

Antimonii oxidii	...	...	...	gr. xv.-xxx.
Tinct. aconiti	...	...	...	mxx.
Aq. laurocerasi	...	...	...	5vij.
Syr. opii	...	...	...	5vij.
Syr. ipecacuanhae	...	...	...	5vij.
Aq. tiliæ	...	...	...	5iv.

Misce. Fiat mistura.

Signe : "Four, five, or six tablespoonfuls to be taken in the twenty-four hours."

For the gastric cough give ten minutes before each meal tr. opii crocata  $\frac{1}{2}$ ij. or codeine  $\frac{1}{6}$  grain, or, during the meal, make a few inhalations of oxygen.

In the case of bronchitic cough or the cough due to compression, the following pills are indicated :

Ext. opii	...	...	...	gr. $\frac{1}{2}$
Ext. stramonii	...	...	...	gr. $\frac{1}{2}$

Misce. Fiat pilula. "Three of these pills to be taken at bedtime, two to be taken during the night, and from three to five during the day."

For the cough of pleurisy, a counter-irritant is the most effective, iodine, the point of a cauterity, or a blister.

### Pediculi Capitis.

DR. ARTHUR WHITEHEAD gives in "The Lancet" (1912, II., 1648) the following rapid method of freeing girls' heads from lice and nits :

The patient is laid on her back on the bed with the head over the edge, and beneath the head is placed a basin on a chair so that the hair lies in the basin. A solution of 1 in 40 carbolic acid is then poured over the hair into the basin and sluiced backwards and forwards until the whole of the hair is thoroughly soaked with it. It is especially

necessary that care should be taken to secure thorough saturation of the hair over the ears and at the nape of the neck, since these parts are not only the sites of predilection of the parasites, but they are apt to escape the solution. The rule I give is that this sluicing shall be carried out for ten minutes by the clock. Lister showed that if the hair is soaked with carbolic-acid solution for an appreciable time it takes up the phenol and the solution becomes progressively weaker. At the end of the ten minutes the hair is lifted from the basin and allowed to drain, but is not dried or even very thoroughly wrung out. The whole head is then swathed with a thick towel, or better a large piece of common house-flannel, which is fastened up to form a sort of turban, and the head is allowed to remain like this for an hour. It can then be either washed or simply allowed to dry, as the carbolic, being volatile, quickly disperses. At the end of this period every pediculus and, what is more important, every ovum is dead, and although the ova are left on the hair they will not hatch, and no relapse will take place unless exposure to fresh contagion occurs. Incidentally, any impetiginous scabs are softened so that they come away easily and allow any ointment which is used for the cure of this complication to be applied easily. In cases where there is no impetigo no further treatment is necessary.

## CHEMISTS' WINDOWS.

New ideas for dressing windows are invited. Photographs of windows sent to the Editor for reproduction should be accompanied by notes on how the displays were arranged.



### A Cold-cream Display.

THE above nicely balanced display of Daggett & Ramsdell's "Perfect" cold-cream was in the window of Messrs. J. Holt Green & Co., 8 Station Buildings, South Kensington, London, S.W. The large showcard forms an admirable centrepiece, while the smaller ovals serve to break up the otherwise formal character of the rows of pots and cases of cold-cream.

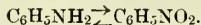
"THE CHEMIST APPEAL—RESULT" was a prominent headline in a big daily paper. Further inspection showed it referred only to the disqualification of a horse of that name, a decision which was upheld.

## Hydrogen-peroxide Solution.

By J. Stanley White, Ph.C.

**H**YDROGEN-PEROXIDE solution is coming more and more into use every day. In the United States it is quite a household article. A single department store in New York sells nearly three-quarters of a ton each day during the summer. Hydrogen peroxide was first discovered by the French chemist Thénard, who prepared solutions of it in 1818, by the action of hydrochloric acid on barium peroxide. Although hydrochloric acid has been replaced largely by phosphoric and sulphuric acids, the method of manufacture is practically the same to-day. Pure hydrogen peroxide is a thick, clear, colourless liquid, having sp. gr. 1.4996. In thick layers it is of a blue colour. It is fairly stable at ordinary temperatures, but violently explosive when heated above 60° C. It oxidises organic matter so rapidly that a flame is frequently produced. When subjected to low temperature, the peroxide forms crystals somewhat resembling ice.

The official hydrogen-peroxide solution (3 per cent.) is notoriously unstable. On the other hand, a 30-per-cent. solution is stated to be a permanent one. Many preservatives for the weaker solutions have been suggested. Acid solutions are fairly stable, but alkaline solutions decompose rapidly. To some extent alcohol acts as a preservative. Boro-glyceride has also been used, and boric acid is still to be found in some commercial samples. Other preservatives, such as salicylic and benzoic acids, as well as sodium chloride, have been used with more or less indifferent success. The most used preservative to-day is acetanilide. Only a very small proportion of this substance is required, but it seems essential that it should be incorporated during the manufacture of the hydrogen-peroxide solution. How the acetanilide acts is a matter of conjecture. Solutions preserved in this way develop an odour of nitrobenzene on standing, which, curiously enough, disappears and reappears. The acetanilide first undergoes hydrolysis to form aniline and acetic acid, and the aniline is then oxidised to nitrobenzene. It is possible that at this stage the nitrobenzene undergoes hydrolysis, re-forming aniline and hydrogen peroxide. The aniline thus formed is oxidised back again to nitrobenzene, and the action is thus reversible :



Speaking generally, it is well known that if a body has work to do, it will do it in preference to breaking down, and thus, as the hydrogen peroxide is continually at work as well as being continually re-formed, the rapid deterioration of the solution is prevented.

By careful evaporation in a scrupulously clean vessel, hydrogen-peroxide solution may be concentrated to produce a solution containing at least 40 per cent. of available oxygen. The results obtained by evaporating 1,000 c.c. of hydrogen-peroxide solution (10 vols.) on a steam-bath were as follows :

1,000 c.c.	3.04 per cent. of available oxygen
450 c.c.	6.52
300 c.c.	9.89
200 c.c.	14.7
100 c.c.	25.2
50 c.c.	43.2

There is much doubt whether hydrogen peroxide is such a powerful germicide as has been generally supposed. Theoretically, it should be an excellent germicide, but its action on cultures taken from a contaminated mouth shows that it leaves the germ status practically unchanged. The reason of its failure is attributed by Dr. H. Steward, New York, to its oxygen being given off outside the cell-wall, so that it does not penetrate to the protoplasm within.

**C. & D. SHOPS ACT NOTICE.**—An inspector of shops under one of the County Councils, writing in regard to the notice-card which we publish for exhibition by chemists during closing hours on the half-holiday, says: "The notice seems to be as little objectionable to the shopkeeper as it can be made." We supply a pair of the notices for 8d., post free.

## Life at Our Pharmacy.

By A Non-editorial "We."

AN assistant in a London pharmacy, if he possesses a bump of humour, need not have a very monotonous time. Surely few businesses can claim so many peculiar customers with such "original" requests; in fact, a large percentage of them have to be told what they want, so vague are their own ideas of the things they require. These are a few examples :

Enter one evening a typical London boy. "A coolin' pahder, please, nearly two years old." "That's rather old for a cooling-powder, Tommy, isn't it?" A vacant look, then a bright idea: "Please, sir, 'e's abaht as 'igh as that," denoting with his hand the height of about 2 ft. from the floor. We presumed he meant by this to verify the age of the patient, so we gave him a cooling-powder, one year and eleven months old!

"Please, mother says will yer give me a three-halfpenny baby's 'frightened' powder?" fell on our ears late one afternoon. "Whatever do you mean by that, missie?" "Baby's fallen down the stairs and got a big bump on 'er 'ead, and mother told me she was frightened, and I was to run and get 'er a powder." In this case cold water was prescribed for the bump, and a doctor for the "frightened." We heard no more.

"Twopenn'orth, please, guv'nor," and a dirty bottle minus a label was thrust over the counter. "Twopennyworth of what, my boy? Have you got what you want written down?" "No," was the scornful reply; "the smell's in the bottle, and I want twopenn'orth of it." And given this clue, we traced it—eucalyptus oil.

Feeling rather tired one evening after a hard day's work, and not too ready to give advice on a penny box of pills, a customer asked, "What's the dose for a man?" "One or two," was the laconic answer. "What's the dose for a woman?" "Oh"—wearily—"one or two." "Then what's the dose for a fool?" This roused us. "He takes the box as well!" we added. We have not seen that man since. Did he take it?

"What is for you, please?" "Twopennyworth of bucking-up powder, please." "I—I beg your pardon." "Twopennyworth of bucking-up powder, please." Now, unfortunately, our young lady clerk, of a particularly "tittering" disposition, was by our side inquiring about an account at that moment, and she immediately collapsed with a giggle at our feet, pulling our coat at the while. With a grave face (though there may have been a slight twinkle in our eye), we said, "Have you not been given the wrong name? Possibly that is a synonym for some powder we have in stock, but you had better ask them to write it down for you." If they did she went to another shop for it.

Two coster girls, loud of dress and louder of voice, arrived about nine o'clock one evening, and produced a bit of "newspaper margin" on which was scrawled the magic word "Kokane." "What's this?" queried the assistant. "Can't yer read, silly? Kokane. K-O-K-A-N-E" (spelling it as written), "that's plain enuff, ain't it?" "I suppose you mean cocaine, which is spelt C-O-C-A-I-N-E," said the long-suffering pharmacist; "but—" "Yus, that's it," interrupted the girl, "only I ain't no scholar like you; but give us twopenn'orth, guv'nor, quick!" "I can't give you cocaine, it's poison; besides, what do—" "Ere, guv'nor, I ain't wantin' to poison nobody." "Well, what do you want it for?" "Why, they're borin' me sister's lug with a 'ot nittin' needle, and she keeps 'ollerin'!" Needless to say, she had our sympathy, but not the "kokane." We sometimes wonder if she still "keeps 'ollerin'."

"Have you any kerosene without taste or smell? I've been all over the place and can't get it." The difference between kerosene as sold by oilmen and paraff. liq. B.P. was minutely explained, and some of the latter supplied. Before leaving, the customer, to all appearance an intelligent man, withdrew the cork, put the bottle to his nose, and remarked, "Yes, that's it, I expect; the doctor told me to take some paraffin oil. I took a teaspoonful of kerosene in the morning yesterday, and a tablespoonful at night. I had a job to get it down, but it acted fine!" Moral: If paraff. liq. B.P. is not found effectual, try kerosene.—(120/17.)

**SIAMESE STICKLAC.**—The export of sticklac, which in 1905 was as high as 48,330*l.*, has since dwindled until the total exported in 1911-12 amounted to only 8,585*l.* The decline is due to its decreased value, as the quantity exported in 1911-12 (336 tons) is little less than half that in 1905, the year mentioned, while the value is barely one-sixth of the total value exported in that year.

## SOME EASTERN DRUG PRODUCTS.

In this article the Cultivation and Commerce of Coca, Areca, Nux Vomica, and Ayapana are dealt with. The illustrations are from photographs taken for "The Chemist and Druggist" by Mr. H. F. MacMillan, of Peradeniya Botanic Gardens, Ceylon.

### Coca.

At the present time, when coca-leaves derived from the Dutch East Indies and Ceylon have become more important commercially than the product from Bolivia and Peru, the photograph below of a Ceylon plantation gains in intrinsic interest. The drug is derived from varieties of *Erythroxylon Coca* (N.O. *Linocaea*), a slender evergreen shrub, from 5 to 9 ft. high, indigenous to Peru and Bolivia, but now found growing on the whole of the eastern curve of the South American Andes. It is well known that there are two principal general types of leaves—viz., the larger-leaved Bolivian (Huanuco) coca and the smaller Peruvian (Truxillo) type. Coca was introduced into Ceylon in 1870, the whole stock in that island and in British India being derived from Kew plants grown from Huanuco seed. This variety, which has been designated *E. Coca* var. *novagranatense*, Morris, is that shown in the illustration. It was not until 1884 and 1885 that cultivation in the various tea-growing districts in India was aided by the distribution of plants from the botanical

only five succeeded. About two years later the first consignment of Java coca appeared on the London market, but met with the indigenous apathy, especially as the quality was then considered poor as regards content of cocaine (0.36 per cent.). Subsequent research has shown that Java coca is remarkable in containing cinnamyl-cocaine and truxilline as its principal alkaloids. Both these give egonine on hydrolysis, and it is used to manufacture cocaine itself. In type, Java coca resembles Truxillo, differing chiefly in alkaloidal character, which appears to be consequent upon cultivation. The fact remains that Java coca is richer in total alkaloid. However, it cannot be used for preparing galenicals. Another interesting point brought forward by de Jong is that the small-leaved Java coca (which he designates as *E. Coca* var. *novagranatense*) gives a crop of fresh leaves about five times as large as that of the larger-leaved plant (ascribed to *E. Coca*). The relative yield of dry leaf is over six to one. Frost, the slightest degree of which is fatal, in particular restricts cultivation of coca to areas below 3,000 ft. The plant grows most successfully in well-drained, moist loams rich in humus. It thus thrives best at medium elevations above sea-level, and on a gentle slope. Shade is essential until the plants are well established, but not afterwards. A rainfall of not much under 70 in. is necessary. Plentiful weeding is another prime factor of successful cultivation. The seeds, which must be fresh (i.e., not collected more than eight days before use), are sown in rows, or broadcast, in nursery-beds, the ground being then covered with grass litter or leaves. Sometimes the fresh seeds are left in heaps, when the heat of fermentation induces germination; they should germinate in about a fortnight. In about four to five months, when the seedlings are 8 in. to 12 in. high, they are planted out in rows about 3 ft. by 4 ft. apart. With good growth, the first picking of leaves may be obtained about eighteen months from the time of planting, or at two and a half years from seed, and they then yield for about twenty years. Several pluckings (two to four) may be made annually, the mature leaves, which are rigid and break on bending, being selected as far as practicable. These are then dried gradually in the shade or under cover, so that they retain their green colour as much as possible. Sun-dried leaves are considered to contain less cocaine.

### COMMERCE.

The dried leaves are best packed for export in tin-lined cases, as access of moisture or sweating incurs loss of alkaloid. On some plantations, however, the bushes are clipped with shears, and the dried product made up in pressed bales for export. A well-grown plant yields from 5 to 10 lb. of leaves annually. The annual yield of dry leaf per acre may be up to 1,000 lb. The total exports of coca from Ceylon in 1911 were 1,452 cwt. (over 160,000 lb.). In the years 1906 to 1909 the Ceylon exports were: 1909, 68,306 lb.; 1908, 80,088 lb.; 1907, 46,986 lb.; and 1906, 41,724 lb. England takes about half of the Ceylon coca exported, the remainder going to various parts of the Continent of Europe. The rapid growth of Java coca exports is evident from the following statistics, compiled by H.M. Consul at Batavia: 1904, 57,032 lb.; 1905, 151,057 lb.; 1906, 274,259 lb.; 1907, 533,765 lb.; and 1908, 151,057 lb. We may add that coca-auctions are now an established feature at Amsterdam, taking place at the same time as the Cinchona-sales. Since May last it has been customary to publish the monthly exports from Java. Some idea of the extent of the industry may be gathered from the fact that in 1910 727,201 kilos. was offered at the ten auctions at Amsterdam, compared with 438,459 kilos. in 1911 and 201,851 kilos. in 1910; the quantities sold in the public sale were: 1910, 183,101 kilos.; 1911, 415,091 kilos.; and 1912, 621,374 kilos.

COCA-PLANTATION IN CEYLON.

gardens in the Nilgiris and at Calcutta. However, the production in India never attained any commercial importance. Attempts to grow the plant in the Sikkim cinchona-plantations failed, but success was met with in Ceylon, on the slopes of the Nilgiris and in other parts of the Madras Presidency. Ceylon leaves are now of two types: Ceylon-Huanuco and Ceylon-Truxillo, the former, which are more esteemed in commerce, being the original cultivated type. As in the South American coca, crystallisable cocaine is the chief active constituent of the Ceylon-Huanuco variety. Of late interest in coca cultivation in Ceylon has greatly diminished owing to low prices for the leaves.

### BOTANY AND CHEMISTRY.

The nomenclature of the different varieties has seen considerable change in the last decade. Most authorities have followed the lead of Rusby and Hartwich in designating Bolivian coca as derived from *E. Coca*, Lam., and Holmes has pointed out that Burck's *E. boliviianum* is probably the long-styled form of this variety. The name *E. truxillense*, Rusby, is now given to the Peruvian variety, the *E. Spruceanum* of Burck, or Java coca, being again a long-styled form. *E. novagranatense* in some respects forms a link between *E. Coca* and *E. truxillense*, the two principal types.

About 1883 coca-plants from a stock since described by Burck as *E. Spruceanum* were first cultivated in Java. The new industry had considerable difficulties to surmount, and of eighteen experimental undertakings in that year,

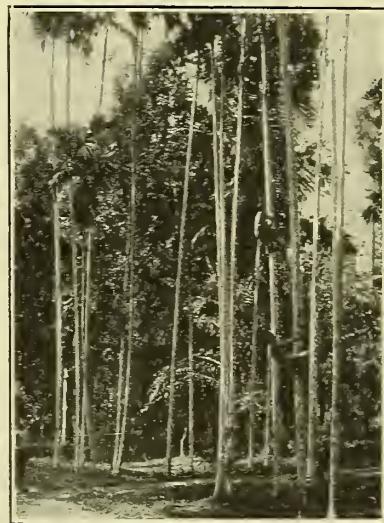
Of the world's supply of coca, Bolivia and Peru still furnish the greatest proportion. Cultivation in Bolivia is conducted mainly in the provinces of the North and South Yungas, the centre being the mountains around Corica, Coripata, and Chulumani, which are covered from base to summit with coca-plantations. The labour problem is here a check to further development, while rudimentary means of transport also limit production. By far the larger proportion of the harvest, estimated at about 95,000 to 100,000 cwt. annually, is consumed in South America, the exports averaging about 5,000 cwt. a year. Peru still produces a considerable surplus of coca, although it is stated that the natural forests of coca-bushes in the provinces of Huanuco, Otuco, and Urubamba are showing signs of exhaustion. Cuzco is now the chief centre of production. The construction of the first cocaine factory at Callao about 1885 by a German firm of druggists was quickly followed by others, and this led to a considerable proportion of crude cocaine being exported, mostly to Hamburg, in place of the drug; but in 1907, owing to over-production, many of the factories closed down, about which time the price of cocaine hydrochloride touched 6s. per oz. Since then several factories have reopened. As regards the United States of America, we note that the imports of coca-leaves in 1909 (free of duty) amounted to 1,100,649 lb., valued at \$126,881, as compared with 591,412 lb. (dutiable at 5c. per lb.) and 117,134 lb. (free of duty)—total 708,546 lb., valued at \$98,454, in 1910. These imports were derived almost solely from South America. In spite of the worldwide attempts to restrict by legislation the consumption of cocaine, we doubt if the actual manufacture of the drug has been seriously diminished. We may add that since the crusade against the opium traffic in China the "official" imports of cocaine into Japan (which are mostly re-shipped to China) have increased considerably. The latest figures, as published by the monthly return of the foreign trade of the Empire of Japan, show that during the eleven months ended November 19, 1912, the imports were 35,321 oz., against 14,767 oz. in 1911 and 12,949 oz. in 1910. The quantity smuggled must be largely in excess of the "recognised" imports, but at some Far Eastern ports there is an entire lack of supervision on the part of the Customs authorities and the drug goes in openly.

The Annual Statement of Trade for the United Kingdom for 1911 contained for the first time the imports of cocaine and its salts, which were as follows: From Germany, 15,173 oz. (6,911*l.*); from Peru, 21,631 oz. (6,359*l.*); from other countries, 189 oz. (84*l.*); from British possessions, 2,355 oz. (878*l.*), making a total of 39,348 oz., valued at 14,232*l.* The imports of coca-leaves into the United Kingdom are included in "unenumerated drugs."

#### Areca.

Areca is a product of immense importance in the Orient, while in the Occident it only finds a minor use as a vermifuge or as an astringent. It is yielded by a palm, *Areca Catechu*, Linn., which is a native of Cochin China and Malaya, and is cultivated throughout tropical India, Ceylon, and the Dutch East Indies. Practically every village in Burma, Bengal, and South India has its groves of betel-palms, with lofty slender stems, each crowned with a tuft of feathery leaves. A peculiarity of this palm is its perfectly straight stem, often 100 ft. high. It is as rare to find a crooked areca-nut palm as a straight coconut palm. The areca-nut palm flowers in April, and the orange-yellow fibrous-covered fruits, which are about the size of a hen's egg, ripen in October and November. The kernel of the fruit when dried and deprived of its fibrous husk forms the areca-nut of commerce. Portions of the conical brown seed are the essential ingredient of the *pan*, the masticatory so beloved by Eastern nations. The seed, which should not be quite ripe, is carefully dried in the sun. It is cut into slices (usually by a crude instrument resembling a nut-cracker), and the pellet for chewing consists of a few small pieces of the nut and a dash of lime-paste rolled up in the fresh leaf of the betel-pepper (*Piper Betle*). Aromatics or other substances, such as tobacco, catechu, cardamoms, cloves, or even rose-water, are often added. There are few natives who would not rather forgo a portion of

their food than their *pan*. The palm thrives well in the Indies at altitudes below 3,000 ft., where the rainfall is not too low. Plantations of areca-nut palms are usually formed from nursery-grown seedlings. The seeds are sown in February and take three or four months to germinate. The seedlings are transplanted when six months to a year and a half old, according to the idea of the cultivator, at distances varying from 5 to 10 ft. apart (up to 3,000



COLLECTING ARECA-NUTS IN CEYLON.

trees per acre). Sometimes the plants are raised direct from seed. The young plants are watered every third day when rain does not fall, until they are about five years old. In Mysore it is customary to grow also plantains or other trees as shade plants. When once established but little further care is required, and self-sown young trees continuously replace those that are cut down as unfruitful. The palms come into bearing about the sixth year and yield full crops for twenty years, when the fruit is apt to degenerate seriously. The yield per tree averages about 250 to 300 "nuts" per year. A crop may average 125,000 nuts to one acre, weighing from 10 to 12*l.* cwt.; but the return is often much lower. Nuts in many districts are now husked by an areca-nut cutter at a cost of 4c. to 5c. per 1,000. The shelled kernels are sun dried, or by heat if the weather is wet. Often they are stored in the partially dried unhusked condition. Many kinds of betel-nut are recognised according to country of origin, these being of two main types, white and red. Ceylon nuts fetch the lowest price in India. Generally speaking, if the white medullary portion be small with a bluish tinge, and the intersecting astringent endosperm be very red, the nut is considered of good quality. A large quantity of the green nuts are also used. Bombay is the principal collecting centre for the areca-nut trade, Ceylon, Madras, as well as the East Indies, sending their nuts to this port, whence they are distributed all over India and to the principal Asiatic centres. The imports and exports of areca also form an important item in the maritime trade of Calcutta, being usually over 50,000,000 lb. per annum. The total production in India must be reckoned in thousands of tons, the greater proportion consumed on the spot. That this is the case is shown by the fact that the exports from India to other countries during the past five years have been as follows:

	1906-7	1907-8	1908-9	1909-10	1910-11
Lb.	289,770	339,353	382,642	293,154	402,907
£	4,705	5,842	6,460	5,234	6,916

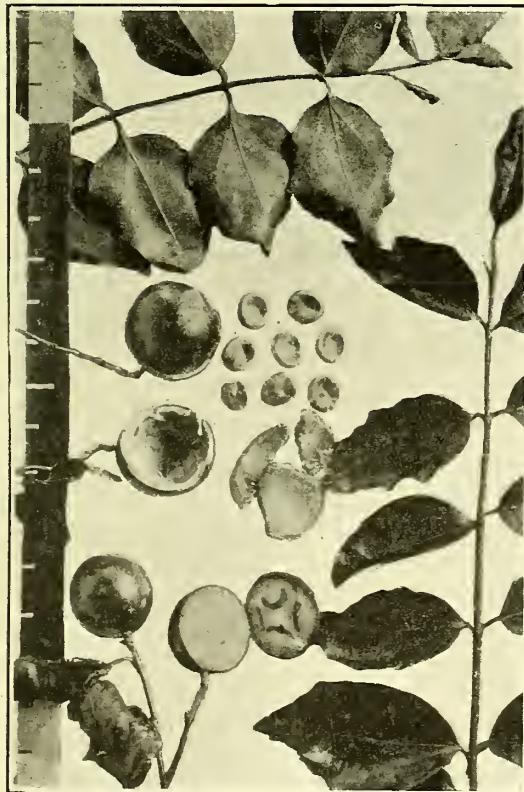
Of these Natal absorbs about one-third for its Indian population. On the other hand, India imported the following amounts during the same period:

	1906-7	1907-8	1908-9	1909-10	1910-11
Lb.	119,732,410	113,538,573	109,536,744	122,127,941	140,297,300
£	769,002	707,558	538,662	586,797	718,813

The amount used by the white races is a very minor proportion; nevertheless, there is at times a temporary scarcity of areca-nut on the London market.

### Nux Vomica.

The nux-vomica or strychnine tree (*Strychnos Nux-vomica*, Linn.) is a deciduous Indian forest tree whose seed is included among the general items of minor forest produce of that empire. It is found throughout tropical India, Burma, and the semi-dry regions of Ceylon. The tree is of moderate size but imposing appearance, with its numerous branches covered with shiny leaves and bearing in autumn clusters of yellow fruits. The opposite



BRANCHES, FRUITS, AND SEEDS OF *STRYCHNOS NUX-VOMICA*.

leaves have three or four prominent veins. The small flowers are borne in greenish-white, rather fragrant terminal or axillary panicles. The large globular fruit is of the size of an orange. When ripe the hard yellow, somewhat brittle shell encloses a mass of soft melting pulp, among which the seeds (eight or ten in number) are interspersed. The ash-grey flat seeds are covered with fine silky hairs, the interior consisting of a hard greyish-green endosperm. They are intensely bitter, owing to the presence of strychnine and brucine. These features are shown well in the photograph which we reproduce of branches, fruits, and seeds. The ripe fruits are freely eaten by monkeys, hornbills, and parrots, who relish the pulp, but reject the seeds. The rhinoceros hornbill in particular fattens on the bitter diet, despite the fact that it contains some strychnine. It is stated that the birds and beasts which eat the pulp know by instinct how much they can safely consume. Good-quality nux-vomica seed is obtained by collecting the fruits, washing out the seeds, and then drying them in the sun. The silky sheen and light colour of the washed seed determine its value. Those gathered from the ground are of considerably less value, especially as the natives do not scruple to collect seeds contaminated with excrement. The latter, which are especially difficult to clean, do not find a ready market. *Nux vomica* is collected extensively in the Eastern Ghats. The districts

of Ganjam, Godavari, and Nellore are the principal centres, and often large stocks of seed are accumulated, as the demand, although large, is not regular. The eastern coast supplies are shipped from Cocanada to Cochin, Bombay, and Madras. Cochin also receives a considerable supply of good-quality nux vomica from the Travancore hills. The total exports of nux vomica from India are not specified in the official trade returns, but America, Great Britain, and Germany are the principal consumers. The imports of nux vomica into the United States of America during the year ended June 1910 amounted to 2,738,662 lb., valued at \$35,170, against 1,666,957 lb., valued at \$27,370, in the year ended June 1909. Statistics as to the imports of nux vomica into the United Kingdom are not available, as the drug is not specifically mentioned in any of the classifications. The strychnine tree grows in abundance in the jungle districts of Ceylon between Kurune-galle and Jaffna, but these areas are so malarious that the natives are reluctant to enter them. Hence from these districts comparatively small quantities of the seeds come on to the market. In the nine months ended March 1911 547 cwt. of nux vomica was exported from Ceylon, compared with 782 cwt. in 1909.

### Ayapana.

Some time ago a well-known Ceylon planter, Mr. James Westland, brought a sample of this drug to the C. & D. office, highly recommending it from his personal knowledge as a mild stimulant. We find that the plant has a considerable reputation in Brazil, Mauritius, Réunion, and parts of India, and prominence has been given to it in Indian works on drugs and medicinal plants, including the Indian Pharmacopœia. *Ayapana* is a small spreading herbaceous plant, known botanically as *Eupatorium Ayapana* (N.O. *Composita*), being thus closely allied to the hemp agrimony of English hedgerows. It is of 'Brazilian origin and is cultivated in various parts of India, Java, and Ceylon.



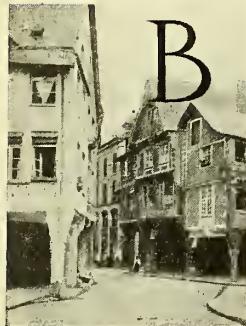
AYAPANA.

In the latter island ayapana has quite a vogue, and many planters attribute much efficacy to a preparation of the leaves as a cure for dyspepsia. The plant is distinguished by its long narrow and somewhat bronze-coloured leaves, and long slender branches which root at the nodes. The plant flourishes from sea-level to about 3,000 ft. elevation and prefers loose sandy soil, under light shade. It seldom produces fertile seed, but is readily propagated by cuttings or division of the roots.



### I. Pharmacy in Brittany.

By W. Maskew, Ph.C. (Clacton-on-Sea).



ANCIENT PHARMACY, DINAN.  
(Under the second arch on the right.)

smelling little town, infested with hotel touts, the streets are narrow, and the ancient fortifications surrounding the town do not enhance its beauty or healthiness. The neighbouring towns, St. Servan and Dinard, are considerably more Anglicised than others we visited, and a few hours sufficed in them. Rennes next claimed our attention, and amply repaid us. Rennes, the chief town in Western France, is a university and military centre. It is perhaps best known to Britishers owing to the Dreyfus trial, which took place there. The public buildings and streets are handsome, but as a business city it is comparatively dull. Opposite the theatre and the most important tram terminus is Galaine's Pharmacy, one of the most noted in France. The personality and energy of the proprietor, M.

Galaine, are fundamental principles which have created for him an excellent connection. During a little chat I had with him many were the callers requiring his personal attention, but he possesses the rare qualification of attending to four or five exacting clients at one time without giving offence. His business has many ramifications in addition to pharmacy. He edits a journal on Public Health, and also controls the destinies of a company (Société des Française des Postes des Désinfection, Guasco) which manufactures apparatus for the disinfection of public and private buildings. We were distracted from photography by an aeroplane demonstration, and later in the day climatic conditions were unfavourable.

We left Rennes about 5 P.M. for Redon, and after

BEAUTIFUL BRITTANY, as this western peninsula of France is euphoniously styled in travel guides, offers many attractions to the holiday-maker. The naturalist, artist, photographer, or antiquary can find no more picturesque part of Continental Europe than the southern portion of Brittany lying along the indented coast-line between St. Nazaire and Brest. A companion and I travelled *via* Southampton, our itinerary including a circular tour around the entire coast-line. Arriving at St. Malo, we found little to arrest attention there. It is an evil-

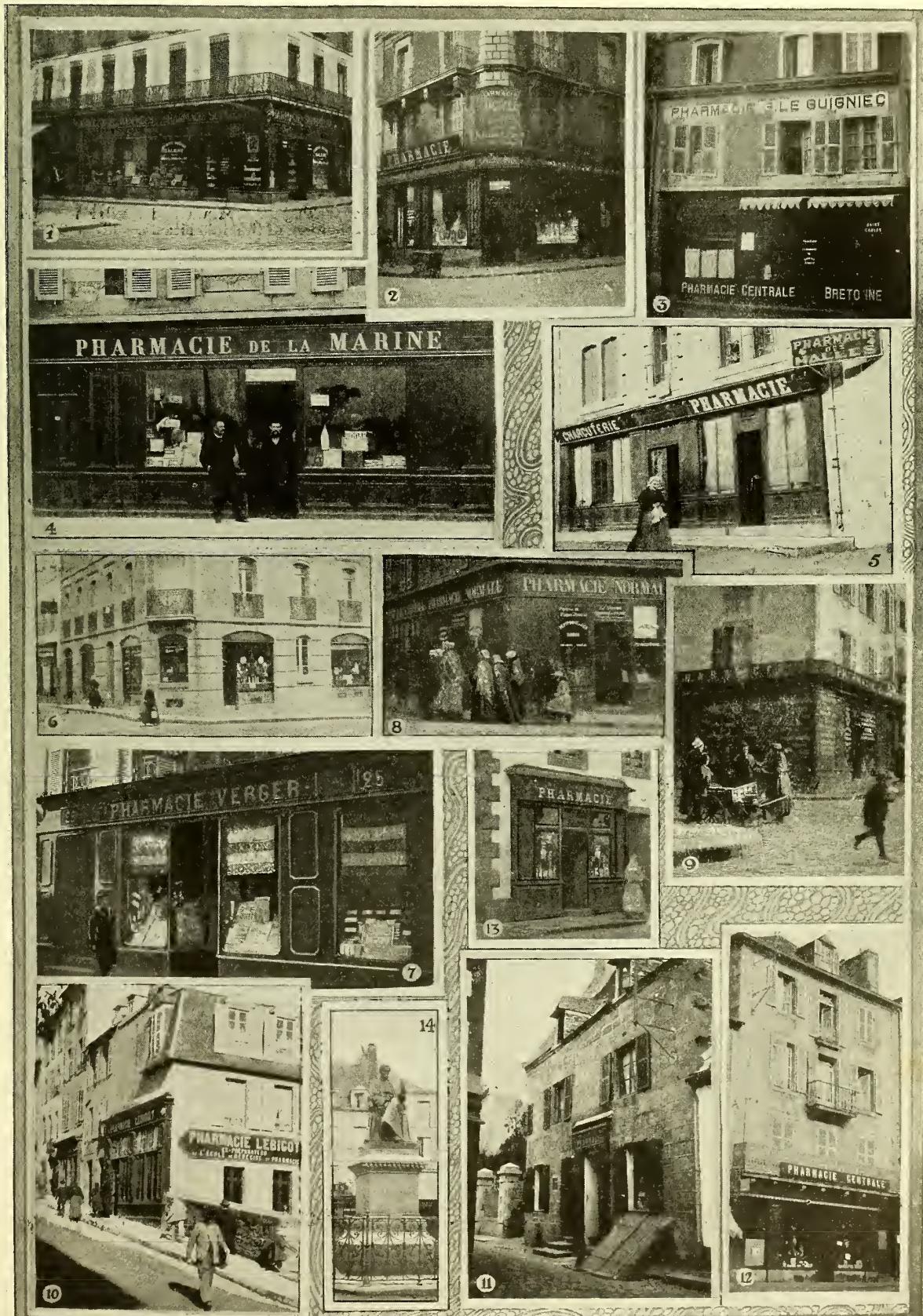
crawling along some time on a single railway line, a reference to my map proved we were travelling in the wrong direction. Time for reflection was afforded, as it was useless to attempt to change until the train reached an important terminus. We decided to alight at Châteaubriant. Instead of receiving a shower of abuse for our mistake, the stationmaster escorted us to a neighbouring hotel and evinced a rather kindly interest in us. We supped with a large party of sportsmen, doing duty to an excellent repast. The following morning being Sunday, from 7 to 7.30 A.M. peasants in quaint dresses, some playing musical instruments, poured into the little town to attend early Mass at the famous cathedral. We witnessed this rather pleasing sight, and also made a tour of the château and museum. At noon the genial "Chef du Gare" saw us comfortably in the St. Nazaire express, and did not call upon us for a supplementary charge, although we had travelled some seventy-five miles beyond the radius specified. St. Nazaire is often alluded to as the Cardiff of France; most of the shipping for Southern and Central America leaves this port. I illustrate M. Railland's pharmacy, generally known as the Pharmacie Principale. It occupies an imposing corner at the Rue des Halles. M. Railland makes a point of advertising 10,000 prescriptions dispensed yearly, also "Prix Réduits" and

"Médicaments de Première Choix." I ascertained that the bulk of these "ordonnances" are dispensed for friendly societies and insurance associations, numbers of which exist in the French industrial towns. Other pharmacies of note are those of Auffray, Conan, Corbineau, Denis, Du Mouza, Le Goff, Mijouain, Prie, and Rafé. Most of these make a bid for the "droguerie" side of the business as well. The chief attractions at St. Nazaire are the modern docks, but the town possesses some well-kept botanical gardens, which include medicinal plants.

Next morning we resumed our journey to Vannes, a very ancient town on the Gulf of Morbihan. Vannes offered a stubborn resistance to Cæsar in his conquest of Gaul, and, like many other Breton towns, has a long record of wars and cruelties connected therewith. The streets are narrow, hilly, and irregular, and, though the population is 28,000, it possesses only eight pharmaciens—viz., MM. Barbedienne, Château, Duchesne, Hüe, Le Gallée de Rummel, Le Rouzic, Marquis, and Turpin. Their establishments are typical of provincial France, the usual flat front, black paint, and the solitary sign "Pharmacie," white enamelled lettering on the door giving the name of the proprietor and his scholastic distinctions; a few packets of tisane, a pair of imitation Sèvres vases, and an enamelled douche tin or two in the window, form a peaceful and happy combination, which proves that undue competition is yet in the background.

#### THE BRITTANY PICTURES.

1. Pharmacie Galaine, Rennes.
2. Pharmacie A. Railland, St. Nazaire.
3. Pharmacie Le Guigniec, Auray.
4. Pharmacie of M. L. Mocude, Concarneau.
5. Pharmacie of M. Nouene, Concarneau.
6. Pharmacie of M. Bréard, Douarnenez.
7. Pharmacie Verger, Brest.
8. Pharmacie Courtois, Brest.
9. Pharmacie of M. Sourdès, Brest.
10. Pharmacie Lebigot, Recouvrance.
11. Pharmacie of Dr. Stephen, Roscoff.
12. Pharmacie Centrale, Dinan.
13. Pharmacie of M. Grall, Pont l'Abbé.
14. Statue of Laennec.



Pharmacies in Brittany.

Being the end of October, we were able to learn something of the cider industry. Large heaps of apples, trucks of apples, and sacks of apples seemed to monopolise the goods department at every station. Hundreds of tons of this fruit appeared to be wasting in the fields and orchards. Cider is the universal drink, and is not charged for when partaking of meals in the restaurants or hotels. In all the smaller towns wine is available on similar terms. In this part of Brittany the women appear to do most of the work. They are seen at work in the fields pushing heavy carts, taking produce to market, mending nets, and packing sardines; while the men folk leisurely engage in fishing, clean the house, nurse the baby, or pass their time smoking, sitting in rows along the quays. There is no dividing line as to what really is a woman's work. Living is very cheap; game, gun, and fishing licences are almost unknown. Some foodstuffs may almost be had for the asking. At La Houle excellent oysters are sometimes sold at 1s. 8d. per thousand. I inquired the price of partridges at Pont l'Abbé, and was quoted 8d. per brace.

Perhaps the most peculiar feature of Breton life is the quaint religious customs. Sacred shrines and crosses exist at every hand, and remarkable legends are attached to them.

On leaving Vannes we spent several days at Auray, making this small town a kind of centre, it being within easy reach of St. Anne d'Auray, Carnac, and other remarkable pilgrimage resorts. Auray possesses three pharmacies, but in the neighbouring town, St. Anne d'Auray, neither doctor nor chemist seems to be needed. From June to September is the best time to witness the "pardons" and religious fêtes, and the little village of St. Anne attracts almost 30,000 visitors on the day of its patron saint. The cathedral of St. Anne is remarkable, and there are hundreds of offerings from grateful pilgrims within its walls, recalling the cures effected at the Holy Shrine. An open-air altar near the cathedral facilitates the crush on Pardon days, and the well has been transformed into a large *piscina* or reservoir, surmounted by a statue of the saint. The pharmacies of Auray are not elaborate, but English visitors are fairly well catered for by them, considering the size of the town.

We were now in the vicinity of Carnac, to visit which a full day was necessary. Carnac may be compared with our Stonehenge, though the Druidical remains number about 8,000. These megalithic monuments are arranged mostly in lines. Here we secured the service of a diminutive guide, through whom we gained an insight of Breton life. He was occasionally possessed of a thirst, and led us in turn to several cottages, where mistletoe hung over the door. This is a sign of hospitality. We were permitted to join the simple Breton folk in their frugal meals for a few centimes. Leaving Carnac we were favoured with a fine day at Concarneau, one of the chief towns connected with the sardine fisheries. The fishing-fleet came in that afternoon, and the port assumed a lively aspect. It is worth recalling that the nets used by the sardine boats are of a pale blue colour and small mesh. When in port they are suspended from the masts, and give an air of brightness to the surroundings. At Concarneau I replenished my stock of films at M. Mocude's pharmacy, which overlooks the harbour. He conducts an important business, catering also for photography and optical prescriptions. The illustration reproduced was given to me by M. le Toux, the manager, who, with the proprietor, appears in the photo. From a pharmaceutical standpoint Concarneau is well provided for; the Pharmacie Centrale, also along the quay, is an imposing structure. M. Nouene's Pharmacie aux Halles, as the name implies, is in the Market Square, and cultivates a dispensing and veterinary connection. The blinds being drawn disclosed highly coloured pictures of tropical scenery painted thereon.

Quimper proved our next resting-place, and accommodation was secured in a fifteenth-century hotel. This city well repays a visit. Its population is about 20,000, and the cathedral is the finest Gothic church in Brittany. In the Place Corentin, alongside the cathedral, is the statue of Dr. Laennec, a native, who invented the stethoscope. The pharmacies worth our notice are those of Clourard,

Gardaliaguet, Decrop, Fichoux, Gautier, Ladouce, Laouenan, Le Moal, and Merat. The Pharmacie Centrale is opposite the principal doorway of the cathedral. Many interesting excursions are possible from Quimper. We selected Pont l'Abbé, fourteen miles distant, and happened to be there on market day. The inhabitants, called "bigoudens," wear curious costumes. The coifs of the women are as peculiar as the pad they wear round their hips, which gives them an appearance of unusual breadth. Their black bodices are trimmed with orange silk. Pharmacy in Pont l'Abbé has two representatives, M. Caraliaque and M. Grall.

Douarnenez, another town of importance, was next visited. The packing of sardines and similar industries engage the attention of its inhabitants. From 2,000 to 3,000 of its male population engage in fishing for mackerel off the coast of Scotland. As seen from the railway, Douarnenez presents a pleasing picture, being built on the slopes of a valley spanned by a fine viaduct. Our sojourn, however, was curtailed by the primitive sanitary arrangements. The emanations from the various factories and the malodours of the fishy by-products ejected into the drains gave us a bad impression of the place. A considerable trade is carried on, upwards of a million tons of fish being handled in the course of a season. On June 20 a religious procession takes place, when the fishing-fleet and sea are blessed by the clergy. Of the pharmacies, that owned by M. Breard is the most prominent. It is situated in a modern block of buildings, and has five windows fitted with carved-oak screens, which rest on a basewalk of red marble. The contents were mainly laboratory and sterilising appliances, elegant show-vases, surgical dressings, and a few proprietaries of the house. M. Tostivant, near the market, and M. Le Quer, in Place de la Croix, are well-established chemists.

Brest, the impregnable naval port of France, next claimed our attention. It is not exactly a tourist's town, but forms a centre for interesting excursions. It contains, as one would expect, some handsome public buildings, including the largest naval hospital in France. Opposite is the Arsenal, and adjoining it the National School of Chemistry, or, as it is generally called, the Pharmacie Centrale. The director is M. Joseph Perrmund Tronchet, who is assisted by seven qualified men. It is here that the explosives are tested, and I had an opportunity of walking through the laboratories. In connection with the dispensary of the Naval Hospital, a Jardin des Plantes and Botanical Museum are open to the public twice a week. The streets of Brest present an animated appearance, almost every other person wearing uniform. There are several fine pharmacies in the Rue Siam, which is the principal thoroughfare. At No. 25 is Verger's; No. 49, Pharmacie Ramée; at No. 75, Foucher's; and Grignoux at No. 109. In the Rue de Paris are Chareteur's, Collet's, Feret's, and Chenart's. The official directory of Brest, including Recouvrance, gives the number of pharmacies as twenty-two, which, excluding those already mentioned, are Allanic, Andres, Bourriquen, Caer, Fontaine, Le Bail, Le Bigot, Le Breus, Lemonnier, Muller, Piriou, Pochard, Sourdès, and Vallée.

Some fourteen miles from Brest is Plougastel-Daoulas, a village famed for its mediæval Calvary, on which two hundred sculptured figures are arranged. Many quaint customs are observed at this village. All the marriages take place on one day towards the end of February, when as many as fifty couples are united. Much subsequent feasting and dancing are indulged in; both the men and women are attired in characteristic embroidered costumes. A remarkable Pardon also takes place on June 29, at which each pilgrim carries a singing bird. Sickly and rickety children are brought from many miles around to receive immersion at the Fountain Blanche, near Plougastel. A photograph is given of the only pharmacy in the village.

On leaving Brest we spent a few hours at Morlaix, a charmingly situated town with a population of 17,000. A considerable trade is done here in butter, honey, grain, oil, seeds, and leather, as Morlaix possesses a navigable canal giving an outlet to the sea eight miles distant. Not caring to remain the night, we journeyed to Roscoff, a

distance of eighteen miles. Here, owing to the influence of the Gulf Stream, the climate is mild and equable. Great quantities of vegetables are exported to England from Roscoff. The exportation of living *langoustes* or lobsters is also an important industry. We witnessed the disembarkment of a steamer from Portugal, the cargo of which consisted of some 15,000 of these edible crustaceans. These were rapidly transferred to hampers and reservoirs, into which the tide can be admitted as required. The counting of these lobsters on their entry to France was done in the presence of Customs officials, who levy a light tax on all imported foodstuffs. Roscoff has several associations with England. The unfortunate Mary Queen of Scots landed there in 1548, and the Young Pretender visited it in 1746. A commemorative chapel (now in ruins) recalls the first event. Almost adjoining this historic building are two pharmacies. One is that of Dr. Stephans, who possesses both medical and pharmaceutical degrees; while M. Picot launches out into side-lines, and caters for the many visitors who frequent Roscoff as a bathing centre. His pharmacy extends considerably to the rear, and his stock is far more comprehensive than a cursory glance at it indicates. A botanical curiosity to be seen at Roscoff in the garden of the Mayor is a fig tree centuries old, whose branches are supported on 118 stone columns. The Paris University biological laboratories are situated at Roscoff, and many eminent scientists have private research rooms in the building.

Our return included a stay of a few hours at St. Brieuc and a full day at Dinan. At the latter town pharmacies are numerous and well equipped, incised facias, well-dressed windows, English proprietaries, and the like indicating either greater competition or a partial English *clientèle*. The same night we embarked on the steamer at St. Malo, leaving behind us memories of a most interesting country and a delightful and hospitable people.

## II. Pharmacy in Italy.

FLORENCE. By H. W. Gedge (Bath).

THE Italian farmacista holds a higher social position than the British pharmacist does, but I question whether he is better off financially. Italy is a poor country and proud, consequently there is a rush for the professions, and the qualification of farmacista is one of the cheapest to obtain—therefore we find plenty of competition in those parts of the country where the number of pharmacies is not restricted by law; but the competition is between themselves, whereas in England we have the big limited companies and unqualified competitors to fight. The pharmacy laws of Italy are a bit mixed—for the ancient laws apply in different parts of the country. One must recollect that fifty years ago Italy was divided into several

macist proprietor dies or there is need of a new pharmacy in any part of Italy, there will be a competitive examination for the concession of the right to succeed or open a new pharmacy, the winner having to pay a tax varying in amount according to the number of inhabitants in the town; present owners will have twenty years' grace.

Medical men are not allowed to dispense their own prescriptions, or to supply medicines or surgical appliances to patients. Neither can dealers supply drugs in less than wholesale quantities. In the towns, however, the wholesale druggists run a retail department, and sell specialities or patent medicines at store prices. Each pharmacy must be under the control of a qualified pharmacist, who must register himself at the Prefecture, and cannot either shut up his shop or absent himself without giving notice to the Prefect and leaving another qualified man in charge, if the pharmacy remains open. The sale of poisons is prohibited without a doctor's prescription, which has to be retained by the pharmacist, a copy being given if requested: No poison-book is kept. Even laudanum cannot be sold without a prescription. There is a legal tariff for medicines, but it is not strictly enforced.

The status of the pharmacist is higher than in England, especially in the country districts; he and the doctor, being university men, are leading lights in local affairs, and respected accordingly. The pharmacy is simpler than in England: prescriptions are written either for pure drugs, or simple solutions, or admixtures in powders, pills, or cachets, tinctures or fluid extracts in drops, and solutions of alkaloids or salts in fresh infusions or decoctions. The so-called elegant pharmacy is not much in vogue. Prices vary, and are somewhat lower than in England for mixtures; and for pills and powders they are often very low, especially in the smaller pharmacies, where the manipulation is often performed by the unqualified assistant or boy, under the supervision of the proprietor. To become a pharmacist is a long job for the aspirant, as the following statement shows:

First. He must pass the elementary standard, which is usually done before ten years of age.

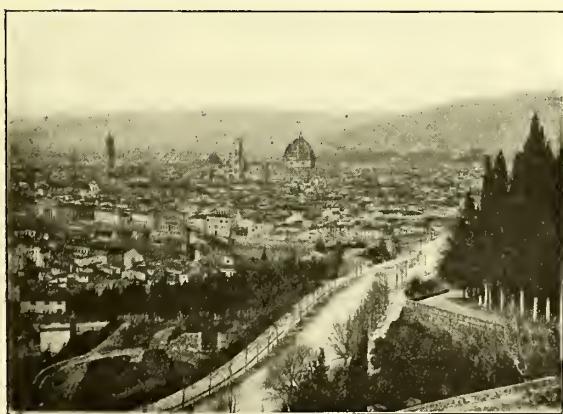
Second. Five years' gymnasium, during which he has to study Latin, Greek, and French, besides mathematics, geography, and history.

Third. Three years' lyceum, during which he has to continue the same studies, except French, and during the third year he may discontinue Greek.

Fourth. A four-years' university course, during which he must study for three years chemistry, botany, materia medica, toxicology, physics, mineralogy, zoology, and hygiene, and one year practical pharmacy in a pharmacy approved by the faculty. If he passes all his examinations he then gets his diploma of *chemico-farmacista*. If he then continues his laboratory studies for another year and does some original research, writing a thesis on it, he may present himself for examination for the degree of *Dottore in Chimica* (Doctor of Chemistry). This makes five years of university, so that the aspirant is twenty-four or twenty-five years old before being fully qualified. Naturally, it requires another year or two as assistant before he can acquire sufficient commercial knowledge to run a business and make it a financial success.

This shows that the Italian pharmacist is a man of far wider culture than his English *confrère*, although, from the business point of view, he develops later.

Dispensing-charges average 25 per cent. lower than in England. It is customary to mark against each item prescribed (according to a scale system of charges now familiar to English chemists in the Insurance dispensing tariff) the price of each article, and to charge from 20 to 60 centimes for the dispensing-fee. The latter varies according to the amount of skill or time required to dispense. Thus it is easy to see what was charged for the prescription the first time it was dispensed, and so uniformity of charges obtains. All liquid medicines are weighed into the bottle, and small quantities are ordered in drops (*gocce*). The diluent or water is likewise weighed in, and the bottle not filled up as in England. The bottles are not divided into parts, as the directions for taking are invariably by drops, tea or table spoon. It naturally takes a little longer at first to weigh each item instead of using a measure, but one soon gets into the habit of weighly quickly; and as the bottle is always tared by pouring small shot from one little tin canister to another, there is not much time lost.

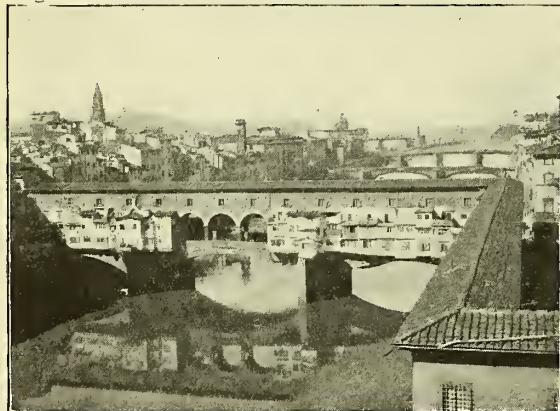


THE CITY OF FLORENCE.

States having different laws, and these laws have in part survived. In Piedmont, Lombardy, and Veneto and the old Papal States new pharmacies cannot be opened without special permission, while in Tuscany there is no restriction. Under a new pharmacy law, every time either a phar-

Powders are much more often prescribed than in England, and one has frequently to put up from thirty to sixty of these, and they are always sent out with a sufficient supply of wafers to take them in. Each powder is not weighed out separately after mixing all the ingredients, but the papers are laid on the counter and the amount for each guessed with the point of a spatula, and it is astonishing what accuracy is obtained with a little practice. I once tried to impress an Italian assistant with the greater accuracy we in England obtain by weighing each powder; but he argued that the patient got all the doctor ordered in the whole lot, and that it did not signify if one contained a little more, as the next would probably contain a little less.

It is customary for the Italian pharmacist to make appointments with the patients of the medical men who usually patronise his establishment, and often to give them the use of a room for consultations. Medical men drop in at certain times during the day to examine the book of appointments which the pharmacist keeps in a pigeon-holed cupboard. The pharmacist in small towns and country districts leads a much more *dolce far niente* existence than we in England, and it is quite a common thing to see him sitting outside his pharmacy on a hot summer afternoon smoking his Tuscan cigar. In the cities few pharmacies close before 10 p.m., and some not until 11 and 12 p.m.



THE BRIDGES OF FLORENCE.

Florence, or, as the Italians say, Firenze, is described as "La Bella Città" (the Beautiful City) and sometimes as "La Città dei Fiore" (the City of Flowers), and is truly a beautiful city, with its palaces, handsome churches, bridges, art galleries, and public squares; but, I think, to an Englishman its beautiful surroundings appeal even more than the city itself. It is situated in a hollow, and the hills surrounding it are covered with olives. To a student of Art there is perhaps no better centre in the world. The galleries are filled with pictures and statuary of those old Florentine masters of the fifteenth century—Raphael, Michael Angelo, Leonardo da Vinci, and many others—whose names will live to the end of time as the greatest masters of art the world has ever seen. One has not even to go indoors to see some of the masterpieces of these giants of the ages, as they can be seen in the handsome dome of the Cathedral by Brunelleschi, and the famous glazed reliefs in terra-cotta by Luca della Robbia; the famous bronze doors of the Baptistry by Ghiberti; the magnificent bell-tower by Giotto and world-famous bronzes by Donatello and others. The history of Florence through the Middle Ages is of one long struggle between rival factions. The Guelphs and the Ghibellines fought like cats and dogs through the centuries—the victorious side driving the other into banishment and confiscating all property, and the banished returning with increased strength at the first opportunity to drive the intruders out in their turn. Dante, who fought for the Ghibellines, was finally banished, and died in Ravenna.

After the struggles between these factions, the Bianchi and Neri (whites and blacks) fought for supremacy, then the Albizzi, the Medici, and others; and so this ceaseless warfare was continued. It is strange, yet true, that during all these troublous times Florence produced a greater number of geniuses in Art than perhaps the whole of the rest of the world put together.

#### ROME. By Ancora Italiano.

I HAD obtained a season's situation in Rome. I booked through the inevitable Cook (9*l.* single), and left Victoria by the night-boat train, going by Newhaven and Dieppe, where I entrained direct for Paris by one of the loveliest routes imaginable, passing through "La Belle Normandie," Rouen, and the Seine Valley to Paris. I had as travelling companion a young Frenchman, who was quite excited over the prospect of again beholding his grandmother, whom he had not beheld for five long years. "And she is eighty years old, *sieur*!" At Paris I had a day to myself (your engagement counts from the moment you leave "Old England's shore"), a look round all my former haunts, and dinner with my friend Louis Philippe in the Palais Royal, most estimable of restaurateurs! Thence to the train. My travelling companions were two ladies—one French, the other Italian. We silently took stock of one another till past Fontainebleau, when a general conversation took place, which set us all at ease. Mademoiselle had luncheon and appurtenances for two; she had expected her brother to be with her, but at the last moment—? In the chilly night, when snow fell, and the kettle sang over the spirit-lamp, I played the part of the brother in drinking the refreshing tea she made. Day was dawning as we passed through the Mont Cenis tunnel into Italy—and what a sight was that! We arrived at Turin too late for our Rome connection, so had perforce to spend the best part of an ideal Italian day there. When we did reach Genoa I had sufficient time to visit Columbus's statue and the famous harbour, Pisa with its leaning tower, then on into the interminable dusk until the day dawned upon a drenching Rome. There I found my pharmacy quite close to the station. I reported my arrival and unfitness for instant duty. Mr. Kindness Personified gave me the day off to recuperate, also an address for lodgings; which settled, I began to do the sights. Starting with St. Peter's, I finished off with the Palatine, which was the wrong way about. It should be ancient first, and straight through the centuries to the more modern.

Next morning I presented myself at 8.30, my day being from 8.30 to 8.30, with two hours for dinner; a half-day off till 7 weekly, Sunday forenoon and afternoon alternately. We had no Italian assistant; the previous one had an inveterate predisposition to slumber on duty, and we waited for a more wideawake one. No stock had to be put up; during the off-season sufficient had been prepared. A specimen-day shows the nature of the work. Here it is:

Arriving at 8.30 prompt, you find the pharmacy cleaned and dusted by the porters, one of whom dwells on the premises; the others are due at seven. Letter orders are attended to, front bottles filled, and stock generally overhauled. By this time orders are coming in by telephone from hotels, pensions, and nursing-homes. "Please send for the prescription." Off go the porters, and work begins merrily. These prescriptions bear the stamps of West-end pharmacies, watering-places, and health-resorts, and are of the usual kind of better-class and specialist prescription. They present no great difficulty. Our bottles were metric ones, so that 250 grams corresponded to our 8 oz., 180 grams to our 6 oz., and so on. We used English measures, but metric weights.

A good forenoon's dispensing and counter-work, then off to dinner. The afternoon is much easier. The tourists are off seeing all the sights they can in the limited time at their disposal, running here, there, and everywhere till they are brought to a halt by physical exhaustion, for which we supply syr. hypophosph. co. The exhaustion is accompanied by corns, for which our Salix is a specific. Nowhere are there such streets for corn cultivation. A customer or two. Soap and toilet articles generally are in great demand. "The soap, Madame, is Quaranta Centesimi." "Beg

pardon? Oh, fourpence. You speak English very well indeed. Where did you learn?" "At school—in Scotland." "Fourpence, I think you said." Exit. Sore throats are prevalent, and glycerin pastilles in demand; colds, feverish and bronchial, common. For both we have a very successful and deservedly popular proprietary. Tea. Light up. The final rush. 8.30. *Buona Sera.*

We sell whisky, brandy, and liqueurs. These you could procure elsewhere—at your hotel, for instance, but there you must pay two or three prices for it. With us you paid but one, and that left a good margin of profit. It did seem queer to me handing over bottles of our best. I usually blushed when I was asked to make such a parcel of it that the hotel people would never know, etc. But as we supplied distilled water in similar bottles, it was oversensitivity. We were usually asked to draw the cork. I got a fearful blowing-up from a Scotchman for forgetting this. He did not come from Forfar, and all his efforts to get at the contents proved in vain. His description of that night spent in a bedroom with a bottle of whisky outrivalled the torture of Tantalus.

Italian customers I found very nice to deal with, ever polite and considerate. A customer for "dieci centesimi Sal Inglese" (pennyworth of Epsom salts) will take off whatever happens to be covering his head, and only replaces it when outside. The better class are exceptionally nice in everything. You need not expect them to swallow anything nasty-tasted. Their favourite method of taking medicine is through a hypodermic needle, and to that end innumerable sterilised solutions must be made, even of ferri cit. with strychnine or arsenic.

Titles are very common in Rome, and it is best not to feel afraid. A previous Pilgrim (such is the title of the season's man) filled a small note-book with princes only, who were customers!

As to Rome itself. The streets are miserably mean and narrow, and devoid of sanitation. The poor have a proverb, "Where the sun shines the doctor never enters." It once had a church for every day of the year, now it has one and three-quarters, and such churches they are too! No tongue could tell or pen describe. For centuries Europe poured all its treasure thither. The churches are the evidence. It is impossible to digest Rome; other places may permit of condensation, Rome defies it. Who could dismiss the Colosseum in a word? The Palatine or the Forum in a line? The Pantheon and other pagan temples in a phrase or two? Even supposing you could exhaust one Rome, another rises—Rome antique, mediaeval, modern. Then do not those giant viaducts point out towards the Alban Hills, where nestle Marino Albano, Tivoli, and Frascati? The pleasures of a sojourn of a season in Rome can be felt, but never adequately expressed. Those who have enjoyed the pleasant privilege will agree.

### III. Pharmacy in Norway.

By *Chemicus*.

IN Norway pharmacies are under State control, and average one for about every 16,000 inhabitants. The business is chiefly dispensing, the average number of prescriptions dispensed per day in a large city pharmacy being about one hundred. In rural districts the number is considerably less, but the average for the whole country is about fifty per day. It is on the dispensing business that pharmacists rely for their incomes to an extent of about 60 per cent. The average price charged for an ordinary prescription is 2 kronen (2s. 2d. approximately).

Physicians in remote districts dispense medicine to a slight extent, but they are prohibited from so doing in cities and towns, and in all places where a pharmacy is conveniently at hand. The pharmacist in turn is prohibited from prescribing. Specialities and "patents" are prescribed only to a limited extent. As a general rule, the only "patents" prescribed are those where the formula is made known and the price is reasonable. Pharmacists are extremely conservative, and stock very few specialities. They expect a profit on these of about 40 per cent. on returns. Prescriptions are the patient's property, but the number of times a remedy may be repeated is indicated by the physician, and varies according to the nature of the medicine prescribed.

Norwegian pharmacists prepare the bulk of galenicals required in their own pharmacies, to some of which are attached well-equipped laboratories. Fully qualified assistants are paid about 110/- per annum, others 75/-; while apprentices receive very little, and sometimes nothing during the first three years. The hours of duty are 9 A.M. to 8 P.M. each day, with an hour and a half for dinner. Assistants are allowed two afternoons off per week, and take special duty about every third holiday. In places where there is only one pharmacy this is kept open all day and all night, but in other places one or two only keep open in this way, the others in the daytime only.

All pharmacies are regularly inspected at least once every year, by properly appointed "archiaters" in the larger towns, and by the district physicians in the smaller places. The latter are sometimes assisted by physicians appointed for the purpose by the Government Medical Board, under whose direction the examinations are made.

With respect to general training, the embryo pharmacist must serve an apprenticeship of three years' duration and pass the High School examinations. At the conclusion of his apprenticeship he is eligible to sit for the First or Minor examination, after passing which, he must put in a further year's service in the pharmacy. This completed, the student attends a course of study at the chemical laboratory of the Christiania University, and also attends the University lectures in physics. The duration of this course is usually from eighteen months to two years, and at the end of the time the student is admitted to the Final pharmaceutical examination. On passing the latter he is entitled to the consideration of the National Board of Medical Directors whenever a new pharmacy is to be opened, or a vacancy occurs in the proprietorship of any of those already established.

A pharmacist's licence may be revoked after due trial in the Courts; drunkenness, fraudulent actions, and bankruptcy are causes for which the licence may be suspended. The standing of the Norwegian pharmacist, both in a social and professional sense, is good, while the relations between physicians and pharmacists are generally very friendly.

### IV. American Pharmacy.

By *Wm. Mair, F.C.S.*

NEW YORK has become a new New York since my previous visit eight years ago; there is also a new pharmacy law in New York State, and the standard of the examinations has been greatly raised. Before being allowed to take the examination for registration the candidate must give satisfactory evidence under oath (1) of good moral character; (2) of possessing a High School education; (3) two years' education in a school of pharmacy; (4) the possession of a degree of graduate in pharmacy, or a licence conferring the full right to practise pharmacy in some foreign country whose requirement to practise meets New York State requirements; (5) four years' experience in a registered pharmacy, half of which must have been in a pharmacy of the United States under the personal supervision of a pharmacist.

Fraser's Pharmacy has moved higher up the fashionable Fifth Avenue, and still embodies the best ideals of what a pharmacy should be. Dr. Wm. C. Alpers has also moved his store, which is a pharmacy in the best sense of the term, further up-town, that being the trend of business in New York. Dr. Alpers told me he had had the satisfaction of seeing one of his cherished ambitions realised, the assumption of the New York College of Pharmacy as a department of Columbia University, with which he had much to do.

The pharmacies still command many of the best corner locations, and some of those in the new buildings are bright and airy, and so lavish of marble and onyx and plate-glass that one would think they hardly ever could become "frowsy." New ones are to be found in all sorts of unexpected places: in the stations of the splendid new subways; in the new Hudson River Tunnel Terminus; and in the two great new railway depots—sumptuous white marble palaces, which tempt Arnold Bennett to ask in regard to the Grand Central Station, nearing

completion, "Is this a cathedral?" Dr. Perry's pharmacy is still at the old stand, at the busy end of Brooklyn Bridge (one of the three or four of the world's most bustling spots). It is the only pharmacy now in New York which has a "hardware" department, if one may so style the saloon which is run as a side-line. There is said to be a pharmacy, which I omitted to look for, in one of the high buildings; and, by the way, rents are dearer the higher one goes up, and buildings of twenty storeys, which were marvels twenty years ago, where some of the wholesale houses have their town offices, such as the Seabury Building, are being torn down

to make way for buildings of, it is threatened, seventy storeys. Certainly the most striking of these new out-of-the-way stores is the little gem of a pharmacy (18 ft. by 35 ft.) situated in one of the marble corridors of the Hotel Astor. Here there are no soda-fountain, no cigars, no carboys, or even any windows, but very practical proprietaries and the daintiest of perfumery at amazing prices, \$15 to \$20 a bottle being nothing extraordinary. Also, the choicest chocolates and bonbons, and a little stationery; but the newest feature is a plate-

glass refrigerator devoted to the display and sale of roses and other cut flowers. The proprietor, Mr. F. K. James,



HOTEL ASTOR PHARMACY.

Ph.G., has four pharmacies in New York, not all so highly rented per square foot as this one.

The recent advent of "Rexall" in New York happened almost simultaneously with the invasion of our shores. The McAlpin Hotel, most of the ground floor of which the Rexall store occupies, at a rental, it is said, of 22,000*l.* a year during the lease of twenty-one years. The location is the best in the business heart of the city—on Broadway, at Thirty-fourth Street near Herald Square, close to some of the most popular great department stores. There is somehow a lack of repose about the otherwise very imposing *ensemble*. The 47-foot soda-fountain, the stationery, and the perfumery and proprietaries, the watches, the clocks, the confectionery, cigars, and books are not all pharmaceutical—the goods are ticketed so as to speak for themselves in the ten or twelve windows, and in the store, but they all seem to speak at once. It is said that the customer is greeted with a smile, and that, on the completion of a sale, a "Thank you" is insisted upon from the employés. This idea has been imported from England. A quasi-co-operative organisation, entitled the American Druggists' Syndicate, with "A.D.S." for short,

is on "Rexall" lines, and issues a series of well-put-up packed goods. Mr. Charles H. Goddard, a retail pharmacist, is the presiding genius. The "Nyal" proposition is also here, for it is New York and London, the house of Stearns, Detroit, being at the back of it.

The biggest recent event in New York pharmacy is the consolidation of the two large Riker and Hegeman Drug Corporations. I was told on my former visit that the 40-foot, very beautiful soda-fountains in the Hegeman down-town Broadway store was "the limit." After eight years they have replaced it with a \$50,000 "new sanitary fountain, on strictly hygienic principles" (I quote the placard) "and absolutely free from contamination." "Candy" is a stronger feature than ever with all the drug-stores, and I saw some fine window-displays of Park & Tilford's chocolates, which are the vogue of the moment, in many of the best pharmacies. Mr. Otto Raubenheimer, however, was showing at his pharmacy in Brooklyn, in which soda-water, candy, and postage-stamps are taboo, a window illustrating the production of essential oils from the crude drugs.

The weekly half-holiday, compulsory with us, has not arrived for the hard-worked American drug-clerk, but duties are apportioned very fairly. In the high-class shopping sections business is suspended at noon on Saturdays and at 5 P.M. on other week-days, but the pharmacies are all open till between 10 P.M. and midnight; then the proprietor, very often personally, has to see to the elaborate preparations for next day's soda-fountain business; he has to take stock of the eggs, the cream and milk and ices, and fresh fruits and the like, so beloved of the store patrons.

In the photographic department it was interesting to find that perhaps not a single druggist does any developing or printing himself. Such work—and the business in it is large—is sent out to a central dépôt, where it is made a speciality and is exceedingly well and promptly done, the time of the pharmacist being doubtless more profitably employed. I did not observe that optical work is in the hands of the chemists.

The amazingly perfect telephone service is still a natural adjunct of the pharmacy, and it is astonishing how soon one falls into the habit of turning into the nearest drug-store for one's nickel's (2*½*d.) worth of conversation. The introduction of the parcel-post was resented for many years by the American Pharmaceutical Association, and other bodies, on the ground that it would unduly encourage the mail-order houses, to the detriment of retail trade, but it was successfully initiated on January 1. The great department stores in the large cities do not carry drugs; certainly none dispense, although Macy's, New York, and others, handle druggists' sundries.

While pharmacy conditions are above the average, as they have always been, in New York and Philadelphia, the general trend all over the States is upward, as I gathered from men who have attended the pharmaceutical conventions in all the chief centres. A higher standard of physician demands a higher grade of pharmacist.

A Brooklyn physician, writing in the "New York Medical Journal" of January 4 on "The Doctor's Future," quotes a recent book published by Macmillans, on "Wages in the United States," to the effect that 90 per cent. of the adult male population of the United States earn less than 160*l.* per annum; 75 per cent. less than 120*l.*; and 50 per cent. less than 100*l.* a year, allowing no margin for doctor's bills. He describes some contract practice existing in New York at one dollar a year per member, and three dollars for a whole family, often of ten or twelve members. A good many of these Societies—mostly Italian and Hebrew—make contracts for prescriptions at a reduced rate, and as these drug-stores often belong to the Society doctor the charge for the prescriptions is far from being "reduced." The writer concludes that "the principle of insurance, with proper limitations, seems to be sound. Some method of providing medical attendance for the people will have to be devised which takes cognisance of their necessities." This is quoted as being merely symptomatic of what I observed was a growing feeling of interest and responsibility in this sociological problem.



MR. F. K. JAMES.

## THE NEW "SANITAS" WORKS.

"The production of 'Sanitas' as an article of commerce is an interesting outcome of the somewhat perplexing chemical researches on Essential Oils which the British Pharmaceutical Conference has for some years had brought before it by Mr. C. T. Kingzett."—C. & D., 1877, p. 365.

HYGIENE has emerged as a "science" in the memory of most of us; its modern practice by disinfection is practically contemporaneous with the life of "Sanitas"; an interesting coincidence, and another proof that given the Man the Measures are made. Mr. Charles T. Kingzett is the Man in this instance. In the early 'seventies he was working on the terpenes of essential oils, and his researches on the subject led to the production of substances which he found to contain hydrogen peroxide and active non-poisonous disinfectants of pleasant odour, but non-toxic in character. Being a man of a practical turn of mind, with all the world before him, and in view of his approaching marriage, desirous of doing better for himself, he cogitated as to how he might turn this to commercial success. One Sunday—at least, we fancy it must have been a Sunday—the Preacher came into his thoughts when he mentally said to himself, *Sanitas sanitatis omnia Sanitas*. With this he added to his scientific research a golden key to Commercial Success. The first manufacturing venture (1877) was conducted in the works of the Thames Chemical Co. at Wandsworth; then an installation was made at Letchford's old match

factory at Bethnal Green, whence a move was made to Limehouse, where new factories and warehouses are now complete; and as further progress there can only be skywards, the place is ripe for description and illustration.

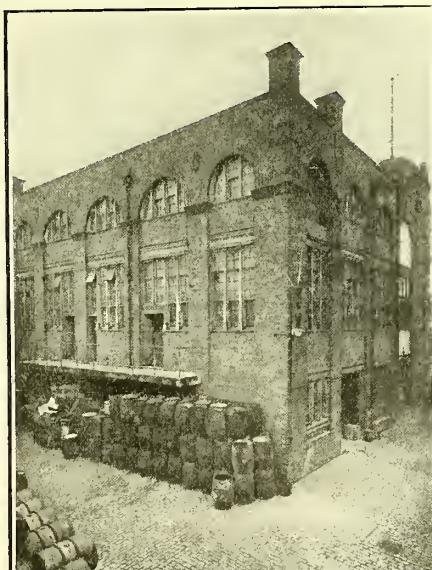
The site of these fine premises is to the west of Burdett Road, one of the main thoroughfares in the East of London. Approaching from the road by Pixley Street, one

parts with the gateway which gives entrance to the yard, and a fine administrative building, including offices and chemical and bacteriological laboratories, is the main structure to the right.

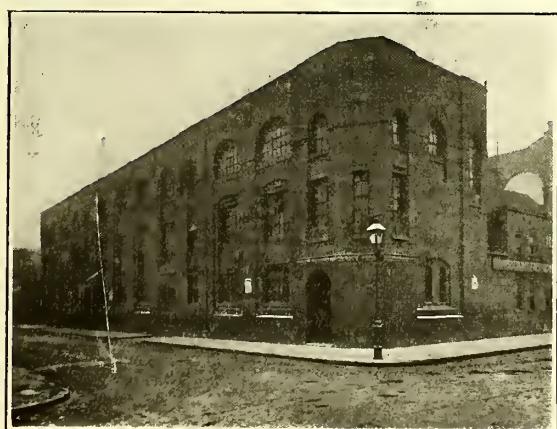
The back of this building is shown in the upright illustration of the yard, with its platform giving egress from the laboratories above mentioned, as well as from the office apartments. Behind all this are other buildings solely devoted to manufacturing purposes, storage, and packing—a perfect labyrinth to the casual visitor, but as straight as it is orderly to those who spend their days in the place.

Entering the premises by the gateway and the administration building by a doorway on the right, a flight of stairs takes one to the first floor, the first rooms of which are occupied by Mr. Reginald C. Woodcock, F.I.C., F.C.S., a very old friend of Mr. Kingzett, who for over twenty years superintended the production of "Sanitas" in New York, and was one of the founders there of the U.S. branch of the Society of Chemical Industry. He followed Mr. Kingzett at Cirencester when they had just emerged from their teens. Mr. Woodcock's work now is chiefly of a supervisory nature, and he knows the alpha and omega of the

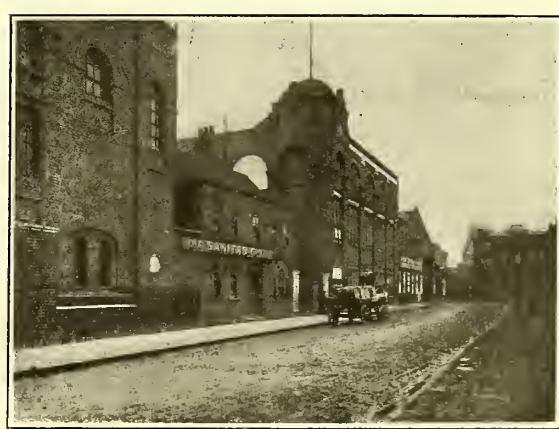
technicalities in the works. His office and the bacteriological and chemical laboratories are situated in the corner of the floor, two windows to the left of the arc lamp and three to the right indicating the area. The analytical laboratory has a door to the platform. Internally, it is luxurious in finish and spacious, for it was originally intended, and was used



BACK OF THE MAIN BUILDING.



PIXLEY STREET BUILDING.



A GLANCE ALONG LOCKSLEY STREET.

enters Locksley Street, both of these frontages being covered with three-storey buildings, which were newly erected when the company purchased the premises fourteen years ago. The caretaker's cottage connects these

for a time, as a board room. So the walls are covered with fine oak panelling. The small picture that we give of the interior suffices to show that it is now a well-equipped laboratory for testing the raw materials

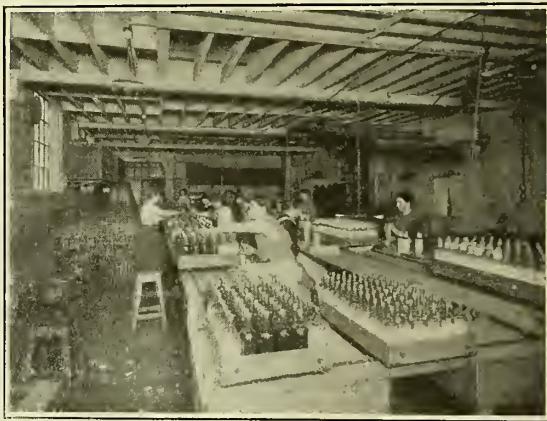
employed in the manufacture of disinfectants, controlling the output as far as this can be done chemically, and doing experimental work. The bacteriological laboratory is similar in size and arrangement, but incubators and microscopes are the prominent installations. The nature of the work done was well illustrated to pharmacists



CHEMICAL LABORATORY.

in the communication to the British Pharmaceutical Conference in 1910 by Messrs. C. T. Kingzett and R. C. Woodcock on "Bacteriological Testings of Certain Disinfectants and the Results as Affected by Varying Conditions." All the experiments for this were done in these laboratories. That investigation dealt with the co-efficiency of commercial disinfectants of the coal-tar order as determined by the Rideal-Walker method with *Bacillus typhosus*, under normal conditions, and others that are common but not allowed for in the method. Their results demonstrated *inter alia* that, while the Rideal-Walker test may serve to determine the relative germicidal values of similarly prepared coal-tar disinfectants, it is not applicable for ascertaining the real or relative values of other disinfectants of a different chemical nature, nor does it afford any measure of other chemical attributes and properties which they have but coal-tar preparations have not. Incidentally, much interesting information was elicited regarding the behaviour of different bacilli to

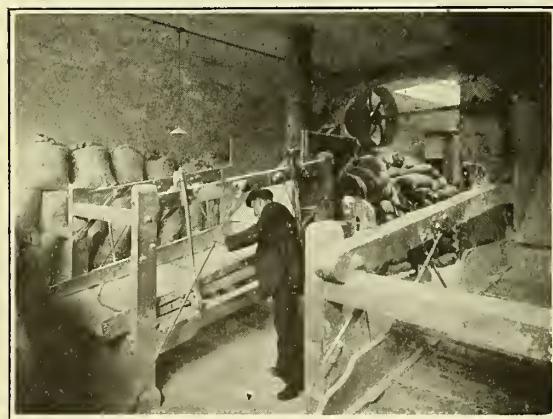
Beyond these laboratories are the general offices, the principal one being depicted in one of the illustrations, with private offices for directors, accountant, and travellers. The floor above is partly used for storage, and the chairman has a suite of rooms, including another laboratory, at the back where the half-moon windows are.



BOTTLING " SANITAS " FLUID.

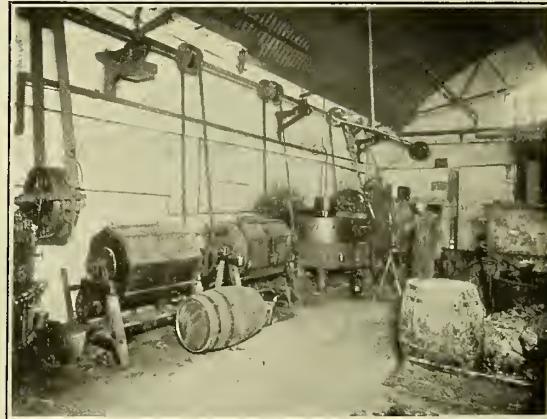
The building has a flat asphalted roof, affording a magnificent view of London. Looking down from this one sees that the premises consist of more than half a dozen buildings, and that they are bounded on one side by the Limehouse canal, whence goods are received from the docks and finished products are despatched to all parts of the world without touching land until they reach their destination.

Let us now look at the various manufacturing-processes which are carried on. An account of how "Sanitas" fluid is made was printed in THE CHEMIST AND DRUGGIST, September 15, 1877. To-day the principle of manufacture is much the same, but there are improvements in detail, and the plant has enormously extended. This is seen in the fine photograph of the manufacturing laboratory on p. 151. The apparatus consists in the main of gigantic Wolff's bottles made of stoneware and standing a little over 5 ft. high. These are placed in water-baths, two rows of twenty-four each, the water being kept at a temperature of 120° F. Water and the terpenes are put into the jars, and when



SIFTERS FOR " SANITAS " POWDER.

disinfectants, as a result of which the "Sanitas" laboratories make a point of using several species of pathogenic micro-organisms in testing their products, so as to ensure, along with standard co-efficiency, certainly that the products do not allow any of the common pathogenic organisms to escape destruction.



EMULSIFIERS AND PANS.

the proper temperature is reached warm air is pumped in at a pressure of two and a half atmospheres. This goes on continuously for about a week until a certain degree of change of the terpenes has occurred, and the water is charged with hydrogen peroxide, soluble camphor, and the other substances, which are the principal water-

soluble products derived from the oxidation of the terpenes. This solution is "Sanitas Fluid," whose pleasant odour is so familiar. The oily portion, when it has attained a sp. gr. of 0.950, is "Sanitas Oil," the active principle of which is camphoric peroxide. When the aerifying process is complete the jars serve for storage, the second set being employed similarly for manufacturing; and so the two sections of plant are used for making and storing alternately from year's end to year's end.

The strong pine-forest odour that prevails in this factory suggests the presence of inflammable vapours, but the company has been fortunate in not experiencing a fire. Every precaution is taken; besides which, every part of the factory is dupli-

cated in another part of the premises. Thus in a quite separate building we found another set of "Sanitas" jars. "Idle?" we asked Mr. Woodcock when we learnt their purpose. "Oh, no," he replied; "every one is used for storage when not employed in making." There is an

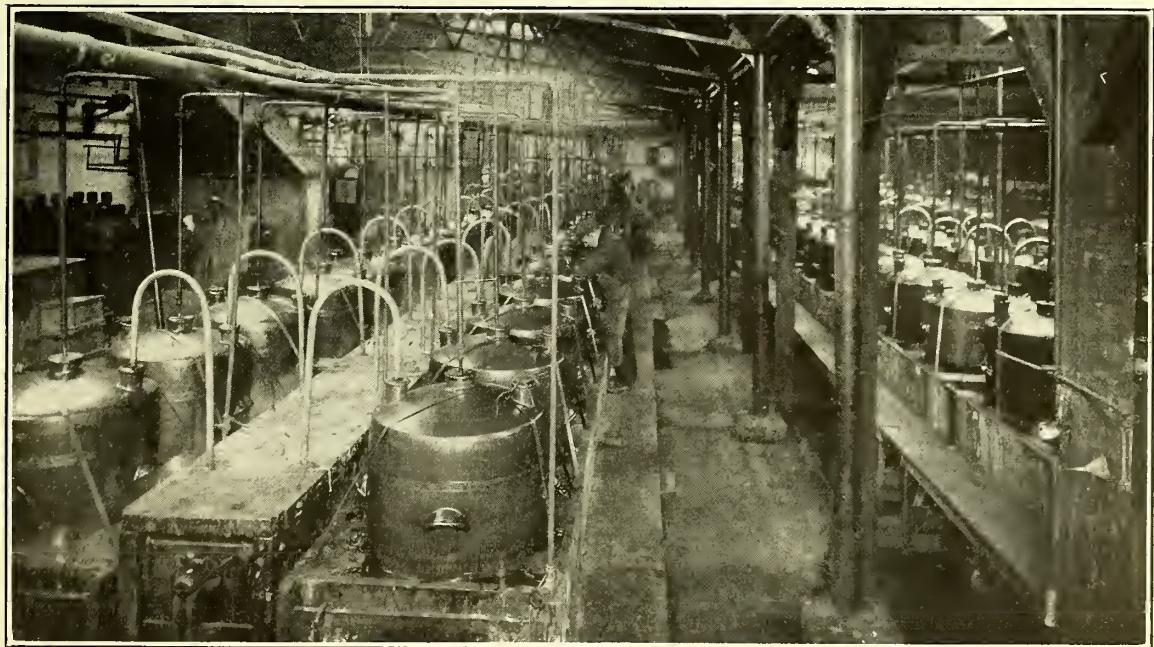
At the end of the factory from which the large photograph was taken is an installation of two large Lancashire boilers, which are used alternately for providing steam and hot water. Here also are the air-compressors needed for the blowing process. In a corner at the other end of the factory is a portion of the emulsifying plant and steam-jacketed pans for making

"Sanitas" soluble oil, "Sanitas" crude fluid, and "Sanitas" emulsion. These are seen in the small illustration on p. 150. One of the steam pans is a huge thing, 9 ft. in diameter, fitted with a mechanical stirring apparatus. It looks as if it were made from one piece of metal, for there is not a rivet in it, but it is built up of pieces of iron welded together. There are

many like it in another building, where, in fact, the coal-tar work is chiefly carried on; for one characteristic of the company's business is that, while the use of the original "Sanitas" products has been growing for six-and-thirty years, the company has introduced numerous



VIEW IN GENERAL OFFICE.



VIEW IN "SANITAS" MANUFACTURING LABORATORY.

ingenious system of transporting the preparations by means of pipes from the factory to the bottling departments, where it is stored in tanks that are connected direct with the bottling-machines, of which more anon.

combinations of them, and has met the demand for coal-tar and other disinfectants according to the fashion of the moment or their efforts to improve hygienic conditions in the combat with disease. We find ample evidence of this

as we walk into an adjacent building containing the chief emulsifying plant and apparatus employed in extracting coal-tar acids rich in germicidal power and antisepticity. Here one sees crude liquids by the tankful, and alkali and resin by the ton. Did one go no further this sight is enough to indicate the volume of the business.

In a contiguous department we had a demonstration of sulphur-candle making, in accordance with the patented methods of Mr. Kingzett, invented with the object of ensuring that when the wick is lighted it will not go out spontaneously like the first sulphur-candles introduced. It is interesting to note that the work is done in such a way that one can stand watching it without fear of choking with sulphur-fumes. Sulphur is one of the most ancient disinfecting fumigants, and it is interesting to learn that, in spite of the occasional contempt of young theorists, burning sulphur retains its popularity and is still doing its work as well as it did in the days of our grandmothers; indeed, the candle-form has assisted in extending its use, for once a "Sanitas" sulphur-candle is lighted it never goes out until all the sulphur is consumed.

We mention the manufacture of these candles as an example of what may be called the subordinate departments of the "Sanitas" business. Others were inspected, such as the compounding and packing of "Sanitas" floor-polishes and the manufacture of disinfecting-blocks for street-watering carts. The operations involved are on the borderland of pharmacy, with mechanical ingenuity applied in the shape of individual motor-stirring apparatus and jacketed pans; which reminds us that throughout the works liberal use is made of the electric current—motors, force-pumps, fans, stirrers, mixers, sifters, and lifts being worked with it. As omnipresent are tanks, barrels, and other means of storage, every space in the premises which is not required for production purposes being used for storing something; even on the company's wharf, where goods are received by and shipped for water-carriage, there are tanks of oils and mammoth tanks (reservoirs really) for the storage of the various raw materials used in the business. It is interesting to observe that these stored liquids are not carried in to their receptacles, but are forced there by pumps, the same force sending them to wherever they are wanted, whether in laboratory, factory, or packing-room.

One of our pictures is from a photograph taken in the carbolic and "Sanitas" powders department, which is situated in one of the new buildings. The figure of the full-grown man may be taken as a guide to the size of the bit of this department which the camera lens has covered. It shows one of the sifters complete and part of another, at the right-hand corner, with piles of bagfuls of sifted powder-base. The department is equipped with disintegrators and mills for grinding the materials employed, and other apparatus for mixing the antiseptic substances with the powder. Again we have in the apparatus and the daily output an index to the extent to which disinfecting-powders are used. Mr. Eric Kingzett took our representative over the boxing department, where "Sanitas" powder is filled into tins in what may be called the reverse way—that is to say, the perforated tops and lids of the tins are fixed on, the powder is put in by the bottoms, after which the worker puts a disc of tinned metal over it, slips it into a machine, presses a lever or two, and the disc is fixed on quicker than it takes to tell how it is done.

Mr. Eric Kingzett is keen on labour-saving devices, and is the inventor of several. One is a bottle-filling machine, which takes advantage of hydrostatic principles in a most ingenious way. The essential part of the filler is, substantially, a U tube, each limb of which is of the capacity desired, and fixed in it at the top is a piece of glass tubing as high as a reservoir of the liquid which is to be bottled. At the junction of the U is a tap which opens one of the limbs to discharge its contents into a bottle; while that is being done the liquid from the reservoir is filling the other limb of the U tube, and stops of itself when the level in the top-tube reaches the reservoir level. Thus Nature is used by the "Sanitas" Co. even in its mechanical operations. Mr. Kingzett has also adapted the principle to a filler, which measures six single pints at a time and discharges the six into as many bottles brought to the filler

in trolley-trays that move on rails, as seen in the picture of the "Sanitas Fluid" packing department.

When passing through the shipping department in the main building, evidence of the universality of "Sanitas" products was seen in cases, drums, and other packages for all parts at home, and for such destinations at Hong-Kong, Straits Settlements, New South Wales, Bombay, and the Argentine. Mr. Norman F. Kingzett and Mr. Eric P. Kingzett are sons of the chairman and assistant managing directors of the company. Mr. Norman Kingzett—a keen business man—devotes himself especially to the export branch and selling-end, and Mr. Eric Kingzett to the production and distribution. Business connection has in some instances influenced the introduction of side-lines into the company's business. Thus, association with sanitary authorities has led to supplying the wants of these in respect to other goods than disinfectants proper. One of the first of these was "Sanitas" soap-powder, introduced in 1891 (the toilet-soap dates from the first year of the company's existence—1878). This soap-powder has grown in favour so steadily and well that it is now a separate department under Mr. Eric Kingzett's charge. The ingredients, after fusion, form a marble-like substance, which passes through a powerful disintegrator to form an impalpable white powder. In the same building there is a "Sanitas" scour polishing-soap department, the pound-heavy tablets being made by a process of fusion and compression. Here also, in the cleaning season of the year a "Sanitas" distemper is made, which is in great demand by sanitary authorities. It is whitewash minus the water, and the machinery for making it is the special design of Mr. Eric Kingzett. Another "Sanitas" product which is less familiar to the drug-trade than the antiseptics and disinfectants is the drain-tester. This is constructed like a railway fog-signal, but the bomb in this case "goes off" when water infiltrates to moisten the contents. Here again is evidence of the scientific mind at the head of the business, for the composition of the newest form of tester is the result of investigation in the company's laboratories. When the tester explodes it gives off a dense white smoke and an effluvium which once smelt is never forgotten.

From the inception of the company to the present time Mr. Kingzett and his associates have introduced something new every year. In 1878 it was "Sanitas" powder and "Sanitas" toilet-soap; last year it was "Bathol" and "Sanitas" bath-salt. The progress of the business has been steady from the first, and there is not in its history any record other than that of sound investment. The first dividend on the ordinary shares of the company was paid in 1881; it was 5 per cent. We find, by a report in the *C. & D.*, March 14, 1885, that the sales during the preceding year amounted to 19,267*l.*, which was 36 per cent. better than in 1883, and the dividend then paid was 12*1*/<sub>2</sub> per cent. By 1890 Mr. Kingzett was able to report that the business had doubled in seven years, in face of increasing competition. The profits in 1891 had increased to 8,125*l.* The company was reconstituted in 1898 and the capital increased to 148,000*l.* The first notable result of this was the acquiring of the premises at Limehouse. At the annual meeting in 1902 it was reported that 12,578*l.* had been spent in acquiring the freehold and extending the works at Limehouse, yet 7*1*/<sub>2</sub> per cent. dividend was paid on the increased capital. Further land adjoining the Limehouse Canal was purchased later. The removal from Bethnal Green was completed by 1907, by which time a profit of 18,343*l.* was reported, for fifteen months, although expenses of construction had been paid out of revenue, while last year (1911-12) the profit-and-loss account balance was 21,033*l.*

Mr. Kingzett wrote to the *C. & D.* of March 1877 a letter from 1 Victoria Street, Westminster, on "The Production of Hydrogen Peroxide from Oils," wherein he gave the gist of researches communicated to the Chemical Society (1874 and 1875), the British Association (1875), and the British Pharmaceutical Conference (1876). The researches had commenced in 1871, and he remarked :

"I am now about to manufacture this aqueous solution as a commercial article, which already has met with considerable appreciation."

He did not, we are certain, dream that his research was to result in the establishment of an industry which was to yield more than twenty thousand a year. His was the first practicable and profitable outcome of the researches on the terpenes during the 'seventies.

What manner of man is he? His portrait shows that he still retains a youthful appearance. It is notable in connection with his academic career that he attended the Lectures of the Waynflete Professor of Chemistry at the University of Oxford (Sir Benjamin Brodie, P.R.S.), which chair is now filled by Professor W. H. Perkin, whose name is identified with latter-day work on the terpenes and the newest educt thereof, artificial indiarubber. Mr. Kingzett was four years at Oxford, and during the latter part of the period prepared the demonstrations of Mr. H. G. Madan, who subsequently became Science Master of Eton. On passing the Oxford Senior Local Examination in 1869, as an Associate of Arts, chemistry and English literature were selected as his special subjects. In 1871 he was appointed chemist to Walter Weldon, and after carrying on investigations relative to a number of new industrial processes for some time at Putney, removed to St. Helens for the purpose of continuing the work and testing some of them on an industrial scale. He was with Mr. Weldon for two years, and after leaving him took over for some short time the chemical management of an alkali-works in Liverpool. It

of phosphorus by air, and established the non-existence of the phosphoric peroxide which Brodie conceived he had established in one of his researches.

After leaving Thudichum, Mr. Kingzett entered into partnership with Dr. B. H. Paul, the firm then becoming Paul, Kingzett & Ackworth, analytical and consulting chemists. The work on essential oils had been going on all the while, as the references to his contributions on the subject show, and he left Dr. Paul to found the "Sanitas" Co., Ltd. He tells us that he owes the name of "Sanitas" to the Earl of Beaconsfield, who on some important occasion about that time gave the sibilant sound to *Vanitas Vanitatis Omnia Vanitas*. A comprehensive account of Mr. Kingzett's investigations on the oxidation of essential oils and their terpenes is embodied in his "Nature's Hygiene," a book which deals especially with the science of sanitation, and which has gone through five editions. One important fact demonstrated by these investigations is that much of the credit ordinarily given to ozone as a constituent of the air is in reality due to peroxide of hydrogen, as generated by various natural processes. His name is also identified with pharmaceutical chemistry in published papers on "An Alkaloid obtained from Jaborandi," which covered the first analysis and formula for pilocarpine; "The Chemical Constituents of *Convolvulus Scammonium*," "Hederic Acid from Ivy-leaves," "Japanese Aconite and its Alkaloid," and "Metallic Compounds in



MR. N. F. KINGZETT.



MR. C. T. KINGZETT, F.I.C., F.C.S.



MR. E. P. KINGZETT.

was during this residence in the North that Mr. Kingzett acquired the intimacy with the alkali trade which enabled him to write "The History, Products, and Processes of the Alkali-trade," published by Longmans & Co. in 1877, a work which was selling at a premium within seven years, and from which many chemists have dug with profit. After leaving Liverpool, Mr. Kingzett became assistant for one term to Professor A. H. Church at the Royal Agricultural College, Cirencester, where his friendship with Mr. Woodcock commenced; then he came to London to assist Dr. L. Thudichum, who was at that time engaged in an investigation (on behalf of the Medical Department of the Privy Council under the charge of Sir John Simon) concerning the chemistry of the brain. This work occupied most of the time during four years, and, in addition to other investigations concerning the blood and the colouring-matters of bile, he published a number of papers conjointly with Thudichum, on such subjects as "Glycero-phosphoric Acid (from the Brain) and its Salts" and "Hemine, Hematine, and a Phosphorised Substance contained in Blood-corpuscles." This work led up to his work on "Animal Chemistry; or, The Relations of Chemistry to Physiology and Pathology" (Longmans & Co., 1878). Following upon a paper communicated to the Chemical Society "On the Formation of Sodium Sulphide by the Action of Hydrogen Sulphide upon Sodium Chloride at High Temperatures," he was elected a Fellow in 1872. In 1875 he isolated calcium hypochlorite from bleaching-powder, thus for the first time satisfactorily establishing the chemical constitution of that body. In other of his investigations he cleared up the chemistry of the oxidation

Alimentary Substances and their Physiological Influences," the last two being in association with Dr. B. H. Paul. His paper to the British Pharmaceutical Conference, with Mr. Woodcock, two years ago, and another now in course of preparation, show that he still takes an active interest in research and in the progress of chemistry. Mr. Kingzett's name is frequently seen in Patent records, for, in addition to the inventions particularly associated with the business of the "Sanitas" Co., he has been identified with many other inventions covering such varied subjects as secondary batteries, methods for dealing with sewage and effluents, the manufacture of chlorine, bleaching blood-albumen, and the making of golf-balls. In point of fact, the bleaching of blood serum and albumen scales, dissolved either in water or blood serum, was for some time profitably conducted by him, in association with the "Sanitas" Co., on a commercial scale. He is a founder of the Institute of Chemistry and of the Society of Chemical Industry, and although in these latter days he is more inclined to spend his leisure on a golf-course, he is very active, enjoys his work as much as his play, and we may yet hear more of him as a leader in one or other of these societies.

In the administration of the affairs of the "Sanitas" Co. he is fortunate in his associates on the board of directors, which consists at present of himself as chairman and managing director, three old friends—viz., Messrs. R. M. Cunningham, C. E. Russell, R. C. Woodcock, F.I.C., F.C.S.—and his two sons, N. F. Kingzett and E. P. Kingzett, who have been brought up to the business since leaving college, and they are his assistant managing directors.

## Permanence of Tinctures.

### Do Tinctures Deteriorate with Age?

STATEMENTS have frequently been made that tinctures and other liquid preparations of certain drugs are liable to deteriorate with age, and conscientious pharmacists are naturally anxious to know the truth regarding these allegations. Do all tinctures deteriorate? If not all, do some deteriorate? and can a list be set out differentiating between those that may be regarded as permanent and those that become weaker? Further, for what length of time may these doubtful tinctures be kept, and what tests can the pharmacist apply to make sure that his stock is satisfactory? In view of these and similar problems it may be worth while to review the available evidence on the subject.

It appears to be admitted by common consent that the fairly large class of drugs which do not depend on alkaloidal or glucosidal constituents for their activity, such as the bitter tonics, are quite stable. These drugs, so far as we know, have no well-defined active principles, and, rightly or wrongly, it has been assumed that what we call, vaguely, extractive matter contains all their virtue, and as the volume of extractive contained in any given tincture remains constant, apart from evaporation of spirit that may take place, we conclude that old tinctures of gentian, calumba, chiretta, and all such, are likely to improve with age rather than to deteriorate.

Before, however, we dismiss from our view this entire class as being stable, we must remember that a certain number of these drugs contain what for lack of a better term we may call a pectinising enzyme, which has very frequently the effect of transforming the various preparations obtained from the drugs into a gelatinous or semi-solid condition. Such preparations as tincture of kino, fluid extract of cinnamon, and concentrated infusion of gentian are all cases in point. The precise cause of pectinisation and the conditions under which it takes place have not yet been fully determined, but this much may be said, that given a sufficiently strong spirit, as a menstruum or as a preservative, the enzyme referred to does comparatively little damage. As regards kino, the enzyme is said to be killed by boiling the drug previous to the preparation of the tincture.

A few drugs depend for their activity on their resin, or on some constituent allied to resin, as, for example, jalap, podophyllum, guaiacum, and cannabis indica. So far as we know, tinctures of the first three are regarded universally as stable, but the same cannot be said of cannabis. According to the most scientific investigators cannabis depends for its activity on cannabinol, a liquid resinoid body, which rapidly oxidises in the presence of air to an inert resin. There is a widespread belief among doctors and chemists that cannabis exerts a widely different influence on different people. This is true; indeed, considering the nature of the effect produced, which is almost entirely psychological rather than physiological, we would expect such differences, in high-strung females, for example, as compared with bucolic, phlegmatic men. But there is a difference also in the drug itself, for every chemist has noticed that extract of cannabis pills dispensed from the same pot have produced varying effects on the same individual. The reason is that the extract exposed to atmospheric influence is inert, while a lower layer in the same pot may be perfectly active. We do not think that tincture of cannabis deteriorates so rapidly as the fresh drug or as the extract, but it has been stated that even the tincture is not permanent.

Alkaloidal tinctures are really the most important class from our present standpoint. A few of these have been black-listed from time to time, and pharmacy has been black-listed with them, often quite unjustly. It may be convenient if we refer to them alphabetically:

#### Aconite.

Now and again someone tells us that the tincture of aconite bought in the shops is inert. For example, in May 1911 the "Proceedings of the Royal Society of Medicine" contained a paper, the writer of which stated that, in a

research to determine the effect of aconite on the pulse-rate and blood-pressure, samples of tincture were "obtained from several firms of chemists," and "these specimens were found to be inert." More recently two workers in Toronto published, in the December number of the "American Journal of Medical Sciences," a similar report, and here, too, it appears the tinctures of aconite, both B.P. and physiologically tested, gave no results, and so "the tincture of aconite on the market is usually inert."

The extraordinary thing about these researches was that in both cases aconitine was also used, and in both the result was also negative, so that the conclusions arrived at by both sets of workers were:

First, that there is no ground for believing that the internal administration of aconite, whether as tincture or as crystalline aconitine, "reduces the pulse-rate or blood-pressure."

Second, that the tincture of aconite on the market is usually inert.

To anyone who calmly reads these reports this last conclusion, which quite unjustly casts opprobrium on the manufacturers of tincture of aconite, is simply absurd. If aconitine failed to do what the tincture also failed to do, what right have the authors to blame the one and not the other? What are the actual facts as regards alkaloidal deterioration? Two very conclusive reports on certain tinctures were submitted to the 1910 meeting of the American Medical Association, and both sets furnish corroborative evidence of great value. So far as aconite is concerned, it was found that any loss of alkaloid after a lapse of one, two, and three years is perfectly negligible, and over the whole series the average amount of alkaloid was found to have remained stationary. This is surely conclusive evidence that the tincture and fluid extract of aconite do not deteriorate so far as alkaloidal-value is concerned. It must be remembered that the accuracy of the chemical test of aconite is questioned, and one of the reports gave the results of the application of Squibb's physiological test. Here also the results were satisfactory, so that it is safe to conclude that tincture of aconite does not deteriorate with age, in spite of pharmacological statements to the contrary.

#### Belladonna and other Mydriatic Drugs.

The liquid preparations of these drugs keep remarkably well in so far as the alkaloidal content is concerned. The average of a series of twelve estimations of liquid extracts and tinctures showed a loss of only one-hundredth part of the alkaloid originally present, or 1 per cent., and in some cases the preparations were five years old when re-assayed. For henbane preparations the average deterioration was 1.1 per cent., and stramonium 2 per cent. It is needful to remark that it is much more difficult to extract the whole alkaloids from certain old preparations than from those made fresh, so that we may assume that in this very important class of preparations there is little or no alkaloidal deterioration with age.

#### Coca.

It has been well known for some years that the liquid extract of coca is very unstable, and the same remark applies to aqueous solutions of cocaine, which quickly hydrolyse with formation of a highly toxic derivative. It has recently been proved that if solutions of a cocaine salt in water be kept perfectly sterile no hydrolysis takes place; but as it is not possible to maintain sterile conditions in our shop rounds decomposition must naturally ensue. Quoting again from the reports referred to, it is found that the average alkaloidal decrease in fluid extract is as much as 30 per cent.; sometimes it is as much as 50 per cent. in a year, which is a clear indication that no liquid preparation containing cocaine should be sold to the public after it is a year old.

#### OTHER DRUGS.

*Cinchona* preparations keep very well, though occasionally a precipitate is found, and in such cases there is a marked deterioration in the alkaloidal content. A series of eight estimations showed an average decrease of 6 per cent. of alkaloid, though it must be noted that where the preparations had remained clear or nearly so, there was no change of strength.

*Colchicum* preparations also keep well, the average of a series of seven estimations showing a loss of only 3 per cent. of alkaloid.

*Gelsemium* tincture stands well, and so does tincture of *Hydrastis*, the average loss over two years in the latter being only 2 per cent., which may be attributed to deposit of hydrastine which sometimes takes place. If these preparations remain clear they are almost certain to be of full strength.

*Ipecacuanha* liquid extract is quite stable, the loss at the end of a year averaging only 1 per cent. of alkaloid. In the case of *Jaborandi* a loss of alkaloid to the average

extent of 7 per cent. was observed, but here again the loss seemed to go hand-in-hand with the precipitation.

*Nux Vomica* liquid extract and tincture keep well, there being no loss of strychnine after the lapse of a year; and in *opium*, the preparations kept up well, the average loss of alkaloid not exceeding 1.75 per cent. per annum.

*Physostigma*, like coca, comes out badly. The average alkaloidal loss was as much as 20 per cent. in two years.

The above constitute the principal alkaloidal drugs, and a general review indicates that taken over all they keep uncommonly well, the worst offenders being coca and Calabar bean. In both of these cases pharmacists should see that their stocks are frequently replenished. The remarks apply in greater force to liquid extracts.

#### THE GLUCOSIDAL DRUGS.

belong to a different category, the active principles being more easily broken up, and hence deterioration is more common. The principal member of the group is digitalis, which for some years has been very much to the front, the general opinion being that both the fluid extract and the tincture rapidly deteriorate. One prominent firm places the date of manufacture on the label, and advises chemists not to keep the preparation more than a year. On the other hand, a recent writer (Dr. Martindale) mentions that one sample of tincture was quite good at the end of twelve years! It has to be noted that the unanimous opinion of pharmacologists, who all favour the idea of early deterioration, is based on the results of the frog test, and recently the question has arisen whether the principle that is toxic to the frog is what the doctor wants for his patient. The cause of deterioration has been said to be an enzyme in the leaves; and a Frenchman took out a patent some years ago for removing this enzyme by a special process, the claim being made that liquid preparations prepared from such leaves were thereafter permanent. Whether or not this is the case there seems to be general agreement that digitalis tincture does deteriorate fairly rapidly, from 10 per cent. to as much as 40 or 50 per cent. in a year, and chemists should therefore see that their supplies are not allowed to get too old.

*Strophanthus* keeps much better than digitalis, tinctures as much as six and eight years old being found to possess their original strength. When tincture of strophanthus is diluted with ordinary water the activity is rapidly destroyed, even in two days, so that the prescription of tincture of strophanthus in an aqueous mixture is quite unscientific. On the other hand, it has been proved that if the water is sterile, and the mixture kept sterile (which is, of course, impossible in practice), the glucoside remains uninjured, and it is argued that the cause of deterioration is bacterial and not chemical.

*Squill* is another glucosidal drug whose preparations keep fairly well, though here also it is advisable not to have them too old.

*Ergot* deteriorates very rapidly even in the unground condition, Cushing stating that ergot a year old should never be used. Whether liquid extract made from fresh ergot keeps good has not been definitely determined, but there is a decided prejudice among medical men against old preparations. Pharmacists would therefore be well advised to dispense only recent preparations and such as have been tested physiologically.

One would not expect

#### TINCTURE OF IODINE

to deteriorate, but according to Professor Reclus it does, hydriodic acid being gradually formed. Recently there has been quite a run on freshly made tincture for use as a disinfectant previous to operations, and even for painting on wounds to prevent infection. It seems to have escaped notice that tincture of iodine was used in antisepsis in London as long as thirty-five years ago—that is before Lister came to London, and at that time there never was any question of a fresh tincture being necessary. For many years also a diluted iodine preparation known as "Bryant's Sherry" has been in use by surgeons, so that it is not to the spirit that the tincture owes its virtue, as some doctors have stated. The theory of the action of iodine as a disinfectant and germicide is that it produces hyperaemia, or congestion, and that the excessive flow of blood to the congested part is the real agent in producing

asepsis; in other words, the hyperaemia brings up an army of leucocytes to expel the foreign invading bacteria. We have never seen an evidence that old tincture or liniment of iodine fails to act as a counter-irritant, and we therefore think it is extremely doubtful whether there is any justification for this craze for fresh tincture.

## Su-kunahiko-no-mikoto, The Patron Saint of Japanese Pharmacy.

In the original from which this is reproduced the saint is wearing a scarlet robe with blue girdle. The drug-pot in his left hand is of a shape often used in this



country for tobacco-jars. The right hand holds what looks like a quill-pen, but it may be a spatula.

## How to Become a Chemist.

As told by a Layman.

"I noticed," said the chemist to his assistant, "that a gentleman came in with a prescription, and that you took it and gave him the stuff in about three minutes. What do you mean by that?"

"It was only a little carbolic acid and water," replied the assistant. "I simply had to pour a few drachms of acid into the bottle and fill it up with water."

"Never mind if you had only to do that," the chemist declared. "Don't you know that every prescription must take at least half an hour to put up, or the customer will think that he isn't getting anything for his money? When a prescription for salt and water or peppermint and cough-syrup is handed to you, you must look at it doubtfully, as if it were very hard to make up. Then you must bring it to me, and we both read it and shake our heads. After that you go back to the customer and ask him if he wants it to-day. When he says he does, you answer that you will make a special effort. Now, a patient appreciates a prescription like that, that he has had so much trouble over, and when he takes it he derives some benefit from it. But don't you do any more of that three-minute prescription business, my boy, if you want to become a first-class chemist."

## Modern Window-dressing.

By A. Mortimer.

THIS is an age of new things. In every walk of life there are new ideas, new machinery, new movements taking the place of the old. The old order passes away, making room for the new. Our newspapers are significant of the times in which we live. They are not full of long prosy articles, but of short, bright, and smart paragraphs. The long speeches and wearisome dialogues of Jane Austen's works have had their day, and the present age demands something which is easier to read and understand. The heavy, cumbersome Early Victorian furniture has

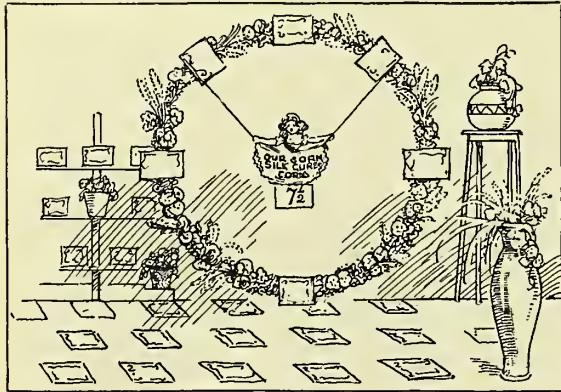


FIG. 1.

gone, and its place taken by brighter and lighter productions. Our window-dressing must be, like our newspapers, adapted for the busy man: full of newsy headlines and pithy showcards, but not overcrowded. The window that is crowded with a medley of goods creates no direct impression on the brain, but only leaves a confused idea which is valueless for business.

A most striking and profitable window can be made with a very few corn-silk envelopes, as fig. 1. The envelopes are laid on the bottom of the window or, if a low window, on a raised stand. The showcard is suspended from a hoop which has been covered with crêpe paper, artificial flowers, and bunches of corn. Ivy-leaves can be introduced if ivy corn-silk is shown, or carnations, poppies, or others may be used if desired. Great care must be taken that the hoop is hung about 3 in. or 4 in. from the glass, and that the showcard with the price attached is exactly on the level with the average person's eyes. The simplicity of this window assists in making a direct appeal to the sufferer.

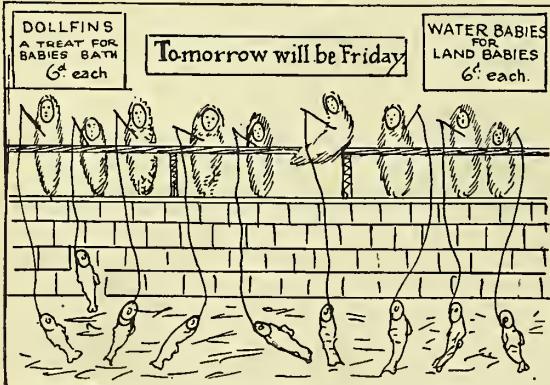


FIG. 2.

The loofah babies and "dollfins" of recent years provide an amusing display (fig. 2). The wall is made by the simple process of taking large sheets of brown paper and marking the necessary brick indications with a little paint

made from zinc oxide and gum. A thin piece of wood is a good enough rail to prevent the babies falling into the water. A few pins are most useful in assisting towards the same end. The water can be made by crumpling up some green crêpe paper or art muslin. The fishing-rods are those of boyhood days; the twigs of trees and a little darning wool make a good and showy "line." When I had this display many customers would insist upon asking for a pair with the rod and line attached. An occasional appeal to children is a great help to business both directly and indirectly. Children will never rest until parents and friends have seen that which interested them. Then the adults become interested in the shop as a matter of course.

In the window, fig. 3, we have a display especially designed to catch the feminine eye. The window needs to

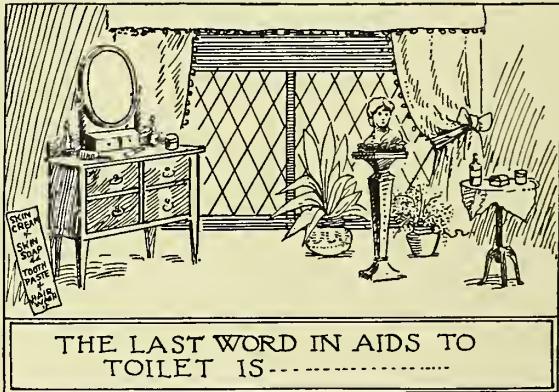


FIG. 3.

be fairly large, so that draping the sides and hanging curtains at the back may produce a presentable room. The addition of a small dressing-table, a round table, a few plants, and similar things will make it into a lady's dressing-room. In my own display, as the toilet series I run is called "Clytie," I had a bust of the ocean-nymph Clytie on a pedestal. On the tables may be placed the various toilet preparations and other accessories, such as hair-brush, comb, eau de Cologne, perfume, powder, puff, tooth-brush, etc. If the window is not overcrowded, this should prove a most attractive and sales-producing display. In my case we even had "offers" for the dressing-table. It is wise to make the room as dainty and good as possible, for if the toilet preparations are of sufficient quality to be in keeping with the best dressing-room imaginable, then to sell them is an easy matter.

To make a powerful appeal to the inquiring mind it is only necessary to give a little information concerning the

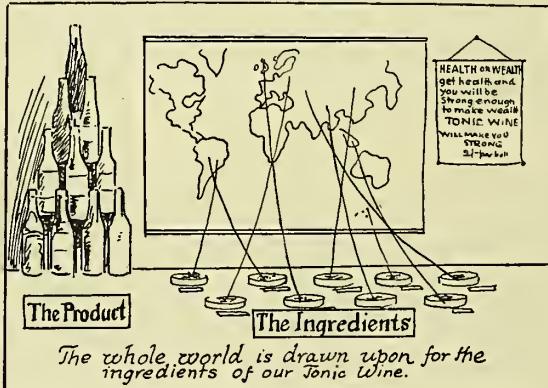


FIG. 4.

goods you sell. If a chemist cannot do this, who can? In the window, fig. 4, is a suggestion which the writer has used with great success. A map of the world is hung at the back of the window. In front are "the ingredients"

in glass dishes. A piece of quarter-inch ribbon, technically called "baby-ribbon," is then attached to each dish and the other end to the map, showing where that particular ingredient comes from. A card containing a brief description of the drug placed in front of the dish will keep the man who hungers after knowledge in front of the window a long time—so long, in fact, that he will read the show-card :

**HEALTH OR WEALTH?**

Get health and you will be strong enough to make wealth.

**TONIC WINE**

will make you strong.

2/- per bottle.

Then he will notice "the product," and if he doesn't buy a bottle there and then he will shortly.

The window illustrated in fig. 5 is suitable for almost anything, particularly a toilet preparation. The young

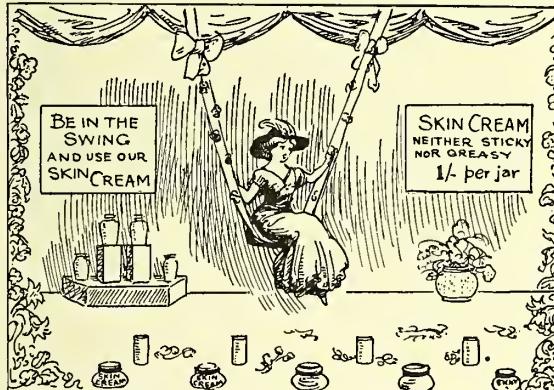


FIG. 5.

lady (a life-sized doll) is seated on a swing made of broad ribbon bedecked with flowers. Flowers and leaves are used for decorating the sides of the window, while artificial moss makes a good floor-covering. A few show-tickets not more than three, can be used with advantage, taking care that they are the right height and not over-worded.

Goods that are well displayed are half-sold. Many lines of goods a chemist stocks are never shown at all. Shaving requisites are often forgotten. The fig. 6 window is a

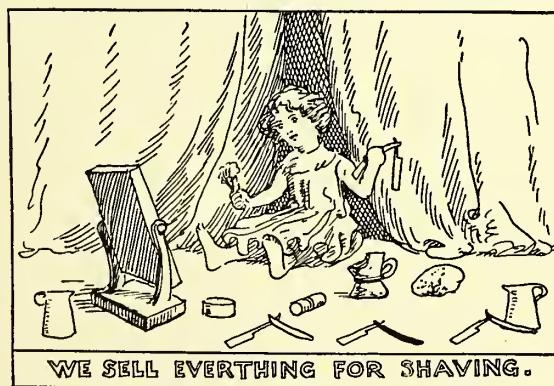


FIG. 6.

method of bringing these goods before the purchasing public. The baby has managed to get a lather-brush and shaving soap, and its face is covered with a beautiful creamy lather, and in its left hand it flourishes a razor. All around the central figure are ranged shaving mugs, razors, soaps, strops, safety-razors, brushes, sponges, and the other shaving tackle. This will prove an attractive window for the men part of the population.

## Chemists' Shop Bills.

SOME advertising experts of to-day deride the publicity methods of Early Victorian chemists, telling us how ineffectual they were, how poor in style, and so on through all imperfections. We have a little bundle before us of chemists' shop-bills and circulars, for which we are indebted to Mr. H. Wilson, F.I.C., governing director of Randall & Son, Ltd., Southampton, which contains material that would make these experts blush for shame, they are so well done, particularly in the matter of typography. They had beautiful type in those old days, and could set it well. A fair example is presented in a quarto billhead of the Southampton firm, which we reproduce :

### RANDALL & SON,

*CHEMISTS, DRUGGISTS,*

**AND MEMBERS OF THE SOCIETY OF APOTHECARIES, LONDON,  
No. 146, HIGH STREET, SOUTHAMPTON,**

PREPARE AND SELL ALL SORTS OF

*Genuine Drugs, Medicines, and Chemical Preparations.*

AN EXCELLENT ASSORTMENT OF  
**THE BEST BRITISH WINES,**

CONSTANTLY ON SALE: viz.

Fine old Sherry, Champaigne, Claret, Grape, Tent, Mountain, Calcavella, Frontigniac, Sherry, Currant, Cowslip, Orange, Ginger, Elder, and Raisin.

N.B. Two Shillings per Dozen, or Sixpence per Gallon, Discount, if paid within one Month from the Date of the Invoice.

The date of this is 1815, the sheet is double, so that it could be folded, sealed, and addressed to the customer in the fashion of a hundred years ago, when envelopes were uncommon. We have little doubt that the heading was an effective advertisement when it was used. A shop-bill of later date issued by "Walduck, Family and Dispensing Chemist, 86 New Bond Street, corner of Oxford Street, London," is a fine example of the typographical art, but the size of the sheet (15 in. by 9½ in.) and the comparative smallness of the type forbid reproduction in facsimile. Two-thirds of the matter in the bill is arranged in double column, the titles being in black letter, and the setting in the style which we endeavour to follow in three of the items :

**Pure Cold Drawn Castor Oil,**  
In family bottles, 2s. and 3s. 6d. each.

**a Concrete Acidulated Kali.**

A dessert spoonful or two briskly stirred in a tumbler of water forms a most delightful beverage in cases of Fever, and those who suffer from thirst during the summer months will find it invaluable, sold in bottles 2s. 6d. and 5s. each.

**Schweppes and Webb's Soda and Potash Waters,**  
sent to any part of London and its vicinity.

These are selected from eighteen specialities described on the bill, which also contains three lots of this kind :

*Fine Turkey Rhubarb, Medicinal Leeches, Patent Lint, and Genuine Patent Medicines.*

The name and address on the heading are followed by an announcement to this effect :

Physicians and family recipes accurately prepared.

None but duly qualified assistants are entrusted with the responsibility of dispensing medicines, which department is kept entirely distinct from the retail business.

*Every Preparation made in strict accordance with the last edition of the London Pharmacopœia.*

The tailpiece is in similar style, the items being as follows :

Country and Shipping Orders Promptly executed.  
Genuine Drugs and Chemicals.

*No Article allowed to leave this Establishment without a proper label.*

Every article kept usually sold by Chemists and Druggists. That was good advertising at the time it was done. As to Webb's aerated waters one of the bills in the collection is about them. It is a four-page quarto, the first two

pages of which are devoted to an abstract of a lecture delivered at the Royal Institution by Professor Thomas Griffiths, of St. Bartholomew's Hospital. It appears from this that "Mr. Maughan, of the Polytechnic Institution, introduced him to Mr. [John] Webb, of Colebrooke Cottage, Islington, who is the largest manufacturer of soda-water in the Metropolis." The Professor was conducted through the factory, and the lecture described what he saw, particulars of the apparatus being given. One paragraph is of special interest, and is :

"The fractures of bottles, during full work, amount to about twelve dozen per day at Mr. Webb's manufactory, and it is really astonishing to think what a cheap rate the soda-water is sold, when we reflect that the outlay of capital for machinery alone amounts to £4,000."

The third page of the circular contains testimonials from Sir Henry Halford, physician to her Majesty (written from Curzon Street, November 25, 1840), from Professor Brande, F.R.S. (Royal Mint, February 19, 1841), and from Dr. Jonathan Pereira. All these are set up neatly and without attempt at display; but on the fourth page of the circular is a boldly set announcement regarding the Southampton "Dépot for the Supply of Shipping in the Docks." Mr. Charles Webb was the agent, and his address was 81 High Street, Southampton. The bill has quite a dignified appearance, and we question if an up-to-date advertisement-writer could do better with the materials than John Webb did.

Another shop-bill from 86 New Bond Street, London, is a quarto on paper that was once azure blue, and it is about fluid extract of taraxacum or dandelion. We learn from it that the fluid extract is the form in which this remedy for "liver complaint and other chronic visceral affections" has generally been recommended by "foreign practitioners of eminence." A tablespoonful was the dose; the fluid extract was "prepared only by J. H. Walduck," and it was sold in bottles 4s., 6d., 8s., and 15s. each, and in gallon and half-gallon stone bottles for hospitals and for exportation. We wonder if Mr. Walduck stamped it?

A good old-fashioned shop-bill, the style of which is apt to persist even at the present time, is that of "T. A. Bridge, Operative Chemist, etc., 270 Regent Street (one door from Oxford Street), London (late of the firm of Hudson & Bridge, Haymarket)." The heading of the bill is as follows :

270, Regent Street (one door from Oxford-street), London.



The pharmacy has long since vanished, and 270 is now occupied by a jeweller. It is a fine business corner. The handbill describes the properties of ginger neatly, and we learn that during sea-sickness and afterwards the essence is most beneficial in doses of 20 to 30 drops. Directions are given for the use of the essence in flatulence, gout, rheumatism, spasms, stomach distension, assistance of digestion, and in all nervous affections. There were in those days no Select Committees on Patent Medicines to inquire into what compounders said of their products, else there might have been "sinkings, tremors, etc., in the said compounders which quintessence of ginger would not have relieved. Mr. Bridge's former partner was, we presume, W. B. Hudson, 27 Haymarket, whose name appeared in the 1841-42 list of members of the Pharmaceutical Society. Here is a reduced facsimile

of another handbill issued by a pharmacist whose name also appeared in that list :

THOMAS KEATING,  
PHARMACEUTICAL CHEMIST,

ESTABLISHED A.D. 1788  
No. 79, ST. PAUL'S CHURCH YARD.

ROYAL VICTORIA BOUQUET.  
PRINCE ALBERT'S PATCHOULI BOUQUET. PRINCESS ROYAL BOUQUET.  
ROYAL ORIENTAL PARFUME.

These Perfumes are much patronized for their delicious fragrance, and for retaining their odorous properties.

ROYAL MARROW POMADE. CRYSTALLINE POMADE.  
MACASSAR POMADE.

The oleaginous and balsamic properties of these Pomades are of the most intense yet effusive nature, preserving hardness and casting a new polish of luster. They have no equal in keeping it in luster and giving that glossy and fascinating appearance so generally desired.

NOUVEAU BOUQUET DE TOILET;  
A combination of the choicest Aromatic Perfumes.

EXTRACT OF SPRING FLOWERS.

This exquisite Perfume is much sought after, as possessing all the fragrance of the most delicate pasture.

Tooth Tincture.

A few spoonfuls added to a wine glass of water forms an elegant and agreeable wash and preservative for the Teeth and Gums.

Importer of Finest Bermuda Arrow Root.

TOUS LES MOIS OR CINNA ROOT, CITRATED KALI, FOR SALINE DRAUGHTS,  
recommended by the Faculty as a new and delicious Aliment, forming a delicious beverage, superior to Soda Water, and possessing properties more efficacious

Improved Sciditz, Soda, Ginger Beer, and Lemonade Powders.

SUPERIOR CAMPHORATED DENTIFRICE.

Permanent Ink, with and without Preparation, warranted not to change colour or wash out.  
HIGHLY-SCENTED OLD BROWN & WHITE WINDSOR SOAPS, TRUE CASTILE, & FANCY SOAPS.

Importer of Genuine Eau de Cologne, Eau de Rose, Eau de Portugal, Otto of Rosis, Essence Violet, Jessamine, Millefleur, and Murexilla.

SODA, SELTZER, MAGNESIA, HOCKLEY, & OTHER MINERAL WATERS.  
DRIED CANDIED CHINA GINGER;

an excellent Stomachic.

Verdicta Tarras, Doctor's Chemist.

This is a very mildewed handbill measuring 11 in. by 8½ in. It was printed at "M. Silverlock's Steam Press, Wardrobe Terrace, Doctors' Commons," which is more noted now for marriage-licences. The bill was good; we have used the past tense advisedly, because we occasionally see chemists' announcements of exactly the same character.

One of the plainest handbills in the collection was issued by Mr. Thomas, dispensing chemist, Ilfracombe, who (we learn from it) was a "member of the Pharmaceutical Society of Great Britain, lately from Randall's, Southampton, Chemist to H.M. the Queen, and Member of the Apothecaries' Company, London." These were the days when Edward M. Randall was the head of the Southampton firm, and it was he, not Mr. Thomas, to whom the latter distinctions applied. The bill contains a list of "Select medicines and other articles prepared and sold by Mr. Thomas," beginning with "Castor Oil, cold drawn, nearly as tasteless as Fine Salad Oil," and ending on the forty-first line with "Lavement Machines" (what were they?) and "Patent Respirators." The bill is a quarto, printed in plain brevier type, and it finishes with the following announcement :

*Apprentices are not received at this Establishment.*

The responsible duties of the Dispensing Department being *entirely* performed by the Principal, the most *scrupulous* attention is observed in every respect belonging to its several compartments, together with due regard, both as to the composition and proportions of the Medicines prescribed, as well as to the quantity of each dose *intended* for administration, in order that, by this Methodical System of procedure, every Prescription may be made up in the most careful Manner.

Every Medicine prepared as directed in the Pharmacopœia of the Royal College of Physicians of London and Edinburgh.

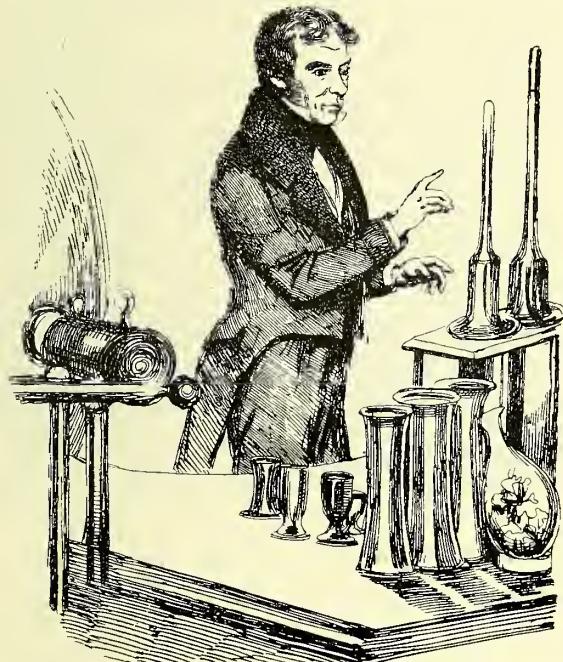
All Drugs and Chemicals may be relied on to be genuine, as they are obtained either from Randall's, Southampton; from the Apothecaries' Hall, London; or direct from the first Operative Chemists of London.

There are other specimens in the collection, and we hope to return to the subject.

## Michael Faraday.

A hundred years ago this noted scientist joined the staff of the Royal Institution, London.

THE centenary takes place this year of the first official connection of Michael Faraday with the Royal Institution, an event which is remarkable in more ways than one. Unlike so many celebrated chemists of the Victorian



MICHAEL FARADAY. By Daniel Maclise, R.A.

(From the Gallery of Illustrious Literary Characters in "Fraser's Magazine," 1830-1838.

Era, Faraday did not begin his career in any way connected with medicine or pharmacy. He was the son of a blacksmith, and was born at Newington Butts on September 22, 1791. Faraday's father lived subsequently at Weymouth Street, Portland Place, London, where he died in 1810. Michael Faraday was first employed as a newsboy with a bookbinder named Riebau, whose shop was in Blandford Street, Manchester Square, and after being with him a year was bound apprentice for seven years without fee. While an apprentice he read Mrs. Marcet's "Conversations in Chemistry" and the articles on Electricity in the "Encyclopædia Britannica," and one of his friends, named Huxtable, a medical student, lent him Thomson's "Chemistry" and Parke's "Chemistry." He has left it on record that at this time he did a few simple experiments in chemistry and constructed an electrical machine from a glass phial, and also that during 1810 and 1811 he attended chemical lectures on Natural Philosophy at Mr. Tatum's, 52 Dorset Street, Fleet Street. The lectures cost 1s. each, and it was there that he met Huxtable and another friend of his early life, Abbott, a City clerk. During this time he kept a note-book, which he called "The Philosophical Miscellany," wherein he noted anything he came across of particular interest. The book is still extant, and contains such items as "To loosen glass stopples" and "To convert two liquids into a solid." One of Mr. Riebau's customers, a Mr. Dance, a member of the Royal Institution, noticing the studious character of young Faraday, gave him tickets for four lectures of a course which Sir Humphry Davy delivered in the early part of 1812. Faraday used to sit in the gallery over the clock and took copious notes of the lectures. These he afterwards wrote out in a quarto volume—the book is a cherished possession at the Royal Institution—and sent them to Davy, asking him if he could assist him in "giving up trade and taking to science." It should be mentioned that

Faraday finished his apprenticeship in 1812 and went as a journeyman to De la Roch, a bookbinder, "a disagreeable master," which facts perhaps accounted for his restlessness. Anyhow, Davy replied to his letter and asked him to call upon him at the Royal Institution. The interview took place in the anteroom of the theatre, in front of the window next the corridor, and the result was that Faraday was appointed on March 1, 1813, to fill a vacant assistantship in the chemical laboratory at a salary of 25s. a week, with two rooms at the top of the house. The date of his appointment is often wrongly given as 1812, but in Paris's "Life of Davy" a letter from Faraday is reproduced, in which the correct information is given, and in Bence Jones's "Life of Faraday" the minute of the Board meeting of the Royal Institution is printed. In October 1813 Faraday accompanied Davy on a tour through France, Switzerland, Italy, and Tyrol, and in a diary which he kept are many interesting notes of the scientific men who were encountered during the tour. He returned and was re-engaged at the Royal Institution on May 15, 1815. His first scientific paper was on "An Analysis of Caustic Lime from Tuscany" in the "Quarterly Journal of Science" in 1816. In 1821 he wrote a "History of the Progress of Electro-magnetism," and in 1823 analysed "hydrate of chlorine," thereby facilitating Davy's discovery of chlorine. He liquefied chlorine and other gases in 1825, and in the same year discovered benzol. In a paper "On a Peculiar Class of Optical Deceptions" which was published in 1831 he suggested the chromatrope, and in the same year he discovered magneto-electricity. This is without doubt the most important of his discoveries, as from it have sprung the modern applications of electricity. The inductive action of an electric body on an adjacent unelectrified body was familiar to him, and he thought that something similar should occur when a wire carrying an electric current is brought near another wire carrying no current. From this he went on to excite electricity by magnetism. Round a welded iron ring he wound two coils of insulated copper wire, the coils occupying opposite halves of the ring. Through one of the two coils he sent a voltaic current, which powerfully magnetised the iron. During the moment of magnetisation a pulse was sent through the other coil strong enough to whirl round the needle of the galvanometer four or five times in succession. The beautiful statue of Faraday by Foley, which stands in the entrance hall of the Royal Institution, represents Faraday holding in his hand this coil. He was granted a Civil List pension of 300*l.* a year in 1835. Lord Melbourne, in announcing this, rather wounded the susceptibilities of the philosopher, for which he afterwards apologised. In the list of qualifications which

*R. Faraday*  
14 Mar 1837

My dear Sir  
As with great pleasure I  
enclose a ticket for you to send  
to the box of your letter  
En V. Faraday  
*R. Faraday*  
*S. R. R. Faraday*  
*D. Faraday*

AN AUTOGRAPH LETTER OF FARADAY'S.

Faraday supplied to the Treasury at the time is mentioned "honorary member of the Society of Pharmacy, Lisbon," and he was in 1832 made an honorary member of the Philadelphia College of Pharmacy. We mention these

because of their interest to pharmacists. One or two other items of a similar interest are given in Bence Jones's "Life of Faraday." In 1819, for example, when he was on a walking tour in Wales, an entry in his diary records how at Machynlleth he called at a doctor's shop for some "spirits of salts," and the "spruce doctor's man" was giving him nitric acid. Faraday pointed out the error, but the assistant replied that they were the same, and brought out a Pharmacopœia, "and opening it at muriatic acid, uttered the Latin name and synonyms fluently and with great emphasis, endeavouring thus to prove to me that the two were alike." Faraday adds in his diary some cutting remarks on the man's ignorance, which seem quite justified when we read of his highly dictatorial manner to a poor peasant woman who brought in a prescription. Again, in 1837 we find that, contrary to his custom, Faraday gave a testimonial to Richard Phillips, who was a candidate for the Chair of Chemistry at University College. In this he says :

"What he has done in connection with the Pharmacopœia is fully sufficient to show the confidence reposed in his talents and abilities by those who hold high station in the medical world, and I can freely say that if I had time and desire to pursue still further pharmaceutical chemistry I should go to Mr. Phillips as my teacher."

Referring to the portrait given on the previous page, the "Dictionary of National Biography" states that physically Faraday was below the middle size, well set, active, and with extraordinary animation of countenance. His head from forehead to back was so long that he had usually to bespeak his hats. In youth his hair was brown, curling naturally; later in life it approached to white, and was always parted in the centre. He is shown standing at the historic lecture-table in the Royal Institution, which is still in use; in fact, the theatre is much as it was in Faraday's day, with the exception of the parquet floor recently laid down and the electric lighting, which Faraday, through his researches, made possible. The letter which we reproduce was written in 1838 when Faraday was beginning to suffer from over-work. It was in 1867 that he died at Hampton Court Green, in a house granted to him by Queen Victoria. He was buried in Highgate Cemetery. One of his nieces who attended him in his last illness is still living; she was granted a Civil List pension of 150*l.* a year in 1868.

Faraday originated the Royal Institution Christmas courses of lectures to juveniles, and in 1833 was appointed first Fullerian Professor of Chemistry to the Institution. It is a coincidence that this year his illustrious successor in that position—Sir James Dewar—has hinted that his retirement is imminent.

## Indian Leeches.

IN the "Records of the Indian Museum" for May 1912 there is an interesting note on the rearing of leeches in Mawai, Bara Banki District, United Provinces, by M. M. Khan. The species here referred to has been identified by Mr. W. A. Harding as *Limnatis (Pacilobdella) granulosa*, Sar. Leeches are known in the vernacular as "Jol" or "Jonk," but hitherto very little has been recorded as to their natural history.

In this part of the country the leeches are abundantly found in ponds, streams, *jheels*, and marshes, but seldom in rivers. The class of people who rear leeches are called "Chohra," and this occupation is the sole means of their livelihood. They use them for curative purposes; whenever any part of the human body is inflamed or its blood becomes impure the leeches are made use of to suck out the blood from the diseased part. This remedy is also prescribed with success by native physicians in slight cases of blood-poisoning.

The breeding season commences in April or May, just before the beginning of the rains. The breeders pick out a few good adult specimens of leeches and put them in a new earthen pot with some pieces of a sort of black clay (called "hair-cleaning clay"), with which people generally clean their hair, and sprinkle some water just

sufficient to keep the leeches wet. This vessel is closed and put away in a secluded corner of the house where there is no likelihood of any disturbance to the leeches. Their breeders are of opinion that they do not form cocoons even if a man's shadow falls over them. This is merely putting stress on the fact that the leeches will not form cocoons if they are disturbed either by footsteps of man or other accident. To avoid this, people in certain places take the further precaution of burying the vessel containing them underground. Every alternate day the vessel is opened and some water is poured in to keep the clay wet.

In the course of a period which varies from a fortnight to a month the breeders find inside the vessel some foamy little whitish masses emitted by the leeches, which within two or three days develop into oval-shaped cocoons, soft and partially transparent. As the cocoons get stiff they are carefully picked up and put into closed cups made of the clay already in the vessel. The cocoons thus closed in the clay cups are replaced with the leeches in the vessel. This process is kept up till all the soft cocoons have become hard and have been removed. The cups are changed every alternate day for a fortnight, when it is perceived that the young ones have developed within them. Then the shells are broken up by the breeders themselves in order to help out the weak ones, which otherwise, not being strong enough to come out by themselves, would die within the shell. Each cocoon contains five or six young ones.

The young ones are kept in fresh water which is changed morning and evening. This method of changing water twice a day helps them to grow up speedily. When the young ones grow sufficiently old to be able to suck blood (which is at once found out by putting the hand in the water, when they rush to attach themselves) they are taken out and placed on some portion of his own body by the breeder, and after they have taken in a little blood they are removed and put back in the water. They are not allowed to suck blood to their satisfaction, for if they do they will immediately die. This process is repeated every fortnight until they grow old enough for the purpose for which they are reared. Then this new batch of leeches is divided into two lots—(1) that which is to be used for medicine, and (2) that which is reserved for breeding. The latter are called "seed leeches," and are kept in water which is regularly changed at intervals until the next breeding season sets in; during this period no blood is given to them.

Whenever the leeches are prescribed for medicine the "Chohra" (breeder) is sent for. He brings with him only those leeches that have not been used for two or three weeks. Some of them he applies to the desired part. The leeches at once begin to suck in blood with avidity, but if the blood has become mixed with pus they will immediately drop off. If it is not, they will suck till they fall off filled with blood, when they seem to lose all energy and become very dull and inactive. The breeder then takes the leeches one by one and pricks them with a needle just near the mouth, on the middle line on the back, and slowly squeezes out the blood thus sucked in from the tail through the opening made by the needle. When the operation is over the leeches are thoroughly rubbed with the hands, which probably relieves them to some extent of the strain caused by squeezing, and restored to the water for future use.

The breeders are of opinion that the wild leeches do not breed in captivity until perhaps long used to it, and it is more difficult to confine them unless they are carefully packed. Their bite when used for curative purposes is unbearable to the patient. This is not the case with the domesticated leech, the bite of which is less painful. The leeches can be kept alive for many years if the water in which they are stored is occasionally changed, but those that have been used hardly live for more than a year.

## The Reportograph.

In our report of the International Congress of Applied Chemistry we referred to the reportograph for taking down the speeches at the meetings, its employment at the Congress being the first occasion it was used outside the Edison laboratories. The machine is not yet commercially available, but we have received from the Thomas



THE REPORTOGRAPH IN USE.

Edison Inc., Orange, N.J., U.S.A., a description and photographs of the apparatus. The reportograph is not intended to replace shorthand writers, but to supplement their work or record speeches in a language with which the phonograph may not be acquainted. At the time of the invention of the phonograph in 1878, Edison mentioned one of the applications of that instrument as "connection with the telephone so as to make that instrument an auxiliary in the transmission of permanent and invaluable records, instead of being the recipient of momentary and fleeting communication." This object, it is claimed, has now been accomplished by means of the reportograph.

The reportograph is worked as follows: The speaker stands at a point on the platform at which the receiver is supported overhead, about 4 ft. away. While any reasonable extent of movement on the speaker's part is not forbidden, it is necessary to remain in "the speaking zone" to secure the best possible results. The receiver may be concealed if necessary. It should be explained that accurate records and accurate transcription call for certain accuracies in dictation. It is impossible to record words on wax that are not enunciated properly, and in this the speaker before an audience readily and unconsciously lends his assistance. The Edison dictating-machine, widely employed in recording office dictation, is used in electrical connection with the reportograph. By this means an operator placed before the dictating-machine in the same room with the speaker (but at any distance apart) is able to start and stop the wax cylinder if the speaker is interrupted or gives way to another, and to make such notes and memoranda to identify the recorded matter as may be necessary to direct the transcriber who does the typewriting in another place. As not more than ten-minutes' speech can be recorded on the surface of a single wax cylinder, two dictating-machines are arranged side by side, which makes it possible for a speech of longer duration to be recorded in a connected manner, without missing the part where the exchange of cylinders is necessary. As the wax cylinders are filled with the records of the speech they are collected by an attendant and taken to a transcribing centre, where typewriter operators who understand the language of the speaker place hearing tubes over their ears and reproduce them, trans-

scribing them at the same time in the ordinary manner. The transcripts are then sent to each speaker for editing and return within a limited time.

It is expected that the reportographs will be available for office use in several directions, such as the recording of telephone conversations. Edison is working at the subject at present.

## A Rare Medal.

In our obituary notice of the late Mr. D. S. Kemp, Ph.C., we referred to the fact that the Council of the North British Branch of the Pharmaceutical Society in 1854 presented him with the Register Fund medal. This

interesting relic has been lent to us by Mrs. Kemp, and we have had the accompanying engraving made of the obverse and reverse, about half the size of the original. It is in silver and is a handsome example of an art which has not yet left Edinburgh. Mr. J. Rutherford Hill, Assistant Secretary to the Society, Edinburgh, informs us that the Register Fund was made up of fees paid to the Branch by employers who were in want of assistants and assistants in want of situations. At a Committee-meeting held on June 13, 1853, it was resolved to expend the money in prizes to the most successful writer of essays among the Associates. The subject fixed upon was

"The General Properties and Characters

of the Vegetable Alkalies." It was reported to the Council on April 4, 1854, that four competitors had sent in essays, and Messrs. Macfarlan, Smith and Hart were appointed to read the essays and award the prize. On April 17 Mr. J. F. Macfarlan announced at a scientific meeting of the Branch the result of the competition, stating that the essay having the motto "Omega" was the one unanimously selected as the best. The envelope bearing this motto on being opened revealed the name of David S. Kemp, who was thereupon requested to read his essay to the meeting. "When read the Chairman complimented Mr. Kemp in very high terms and proceeded to bestow the medal amidst the loud acclamations of the meeting." This was not the first distinction of the kind that Mr. Kemp had achieved, for as a student of the extra-mural School of Medicine he in 1852 obtained the Materia Medica prize, and it is interesting to note that the late Sir Douglas MacLagan was lecturer on the subject, this being before he was appointed Professor of Medical Jurisprudence in the University.



REGISTER FUND MEDAL.

THE FAMOUS AMERICAN RECEIPT FOR THE RHEUMATISM.—Take of garlic two ounces, of gum ammoniack one drachm; bruise them together, and make them into bolusses with clear water. Swallow one of these bolusses at night, and another in the morning. Drink, while taking this, strong sassafras-tea; and it will be generally found to banish not only the rheumatism, but even contractions of the joints, sometimes in less than a week. It is said frequently to give relief in a few hours.—*Pocket Magazine* (November 1796).

## Some Old Mortars.

SINCE we last published some particulars and illustrations of old mortars we have received several contributions towards the subject. From one of our correspondents we have received particulars of a remarkable



FIG. 1.

pestle and mortar (fig. 1) dug up near the Temple of Diana at Aix-le-Bains (Savoy), and now in the town museum. It is probably the oldest of the many that have been illustrated in the *C. & D.* The mortar is of soft stone, and the cavity is apparently of natural formation. The pestle is an elongated piece of stone akin to what are sometimes called "thunder stones," and has evidently seen a good deal of wear. The Temple of Diana at Aix-le-Bains is a fine specimen of the characteristic architectural style of the

two lines in the first of these is worn, but reads: "W. Aged 69. 74 years. Mary & Thomas." The second mortar has upon it a fleur de lys and mitre ornament. Fig. 5 is of an unusual type of bronze mortar in that it has only one handle. It is curious to note that last year an old one-handled metal mortar was fished up from the Spanish Armada wreck in Tobermory Bay.

Another correspondent, referring to the Heudier collection of mortars, particulars of which were given in the *C. & D.* some time ago, sends us some interesting observations on mortars. Looking at them through a collector's eyes, the dominant impression is that France and the Continent generally offers far greater opportunity for getting together a collection of really artistic specimens of ancient craftsmanship than England. The mediæval and later artists in metal and pottery attained an excellence that was never met with in English craftsmen of the same period.

By successive periods of culture and conquest, France up to the later eighteenth century was the treasure house of the artistic world. In regard to the large size and beautiful handles of some of M. Heudier's specimens, our correspondent states that he has never met with an English mortar weighing anything like one hundredweight with handles beyond the rudimentary type of projections or staples. It would be very difficult to find any large English mortar with decoration of a pretentious character, and certainly unique to find anything to compare with Florentine work. The bust of a king, a crest, a rebus,



FIG. 2.



FIG. 3.



FIG. 4.

Roman temple. It is built of huge blocks of coarsely-wrought stone placed one on top of the other without cement. With almost incredible lack of discernment, the authorities of former times removed the granite columns of the front, which now lie prostrate. The temple adjoins the former palace of the dukes of Savoy, who used it as a stable; and the municipality of more recent times plastered the inside walls and built a sort of lath-and-plaster lobby in front, in addition to other mutilations, such as an iron gallery running round the walls, for the purpose of enabling the building to be used for theatrical performances, so that only glimpses are to be had of the original building, which is hemmed in by private dwellings. It now serves the purpose of a museum of objects of local interest, but funds have been voted to pull down the surrounding buildings and restore the temple to its normal naked proportions.

The illustrations (figs. 2, 3, and 4) are unusual from the fact that they are of yellow metal instead of bronze, the material of which most old inscribed mortars are made. There are to be found many old brass mortars, but they are mostly quite free from ornamentation and inscription. Fig. 3 is an unusual shape for a brass mortar, and but for its weight (4 lb. 4 oz.) might have been taken for a goblet. It is 5½ in. high, and measures 4½ in. across the top. Figs. 2 and 4 are both 4½ in. high, and weigh (fig. 2) 4 lb. and (fig. 4) 3 lb. The decoration in

together with inscriptions such as could be supplied from the stock in trade of the bell founder, would appear to have exhausted the resources of the English mortar founder as regards large mortars. During the periods when bell-metal mortars were largely used we could not have had in England men who worked in metal for the sake of art and the high development of craftsmanship. The

Florentine Renaissance brought the application of the artistic to common objects of everyday usefulness, but by the time this artistic wave had spread to England the mortar was obsolete, a thing of the past; hence, it would seem, the absence of really artistic ornament in English specimens.

The scarcity and rareness of an article gives it an added charm to a collector, so the English mortars one meets with that are dated or decorated become more appreciated.



FIG. 5.



#### Mr. Maskew's Collection of Mortars.

THE mortars numbered 1, 2, and 28 are probably Italian; they are highly ornamented with portraits or medallions. Nos. 3, 13, and 2 date from Stuart times, the features of the Merry Monarch appearing both crowned and uncrowned on the last two. Nos. 5 and 20 are of Swiss or German make; they were acquired at Berne. The second example has small bears in the medallions. No. 6 belongs to the Jacobean period. No. 9 is also English, and is dated 1721. No. 11, dated 1624, is a North German mortar.

Nos. 12, 26, and 27 are French, and are decorated respectively with heads of cherubs, a satyr, and Bacchus. No. 15 is French, with a Joan of Arc decoration. Nos. 16 and 18 are Early English specimens, one having four handles. No. 19 is Dutch. No. 24 bears the crest of the Commonwealth. No. 10 is an *etui* of chemists' weights elaborately engraved, and No. 17 is a specimen, in perfect condition, of scales and weights of Spanish origin. [These specimens have been collected by Mr. W. Maskew, Ph.C., Clacton-on-Sea.]

## Evolution of a Speciality.

By Arthur E. Bailey.

WHEN in business on the Continent there was a great demand in the neighbourhood for a certain patent cream for the toilet and for purposes of massage. The manufacturers refused to allow us reasonable terms for this, and I decided to run a proprietary in opposition to it. I succeeded so well that in three months the sales of our cream were a dozen for one of the other. I propose to tell how this was done.

There are four essentials to success in putting a new preparation on the market: (1) a good formula, (2) good appearance, (3) good advertisement, and (4) good salesmanship. You must have a good formula to start with, or else you will never make repeat sales. Try your formula first on your friends. They will not hesitate to tell you if it is bad. Your reputation lies behind your formula; do not risk the one until you have proved the other. Here is the formula I used; it was taken from the *C. & D.*:

Lard	...	...	...	...	2½ oz.
White wax	...	...	...	2	oz.
Powdered white soap	...	...	...	2	oz.
Rectified spirit	...	...	...	2	oz.
Distilled water	...	...	...	16	oz.
Otto of rose	...	...	...	10	mins.
Oil of almonds (essential)	...	...	...	5	mins.
Oil of cloves	...	...	...	5	mins.
Oil of rose geranium	...	...	...	5	mins.

The lard, wax, and soap were mixed together on a water-bath and boiling water gradually added with constant stirring, the oils and the spirit mixed being added on cooling.

I found the best method of manipulation was to transfer the mixture without the oils to a wide-mouth ammonia-jar, with screw-down lid (previously heated by filling with boiling water), then shaking the whole vigorously until cold, when the perfumes may be stirred in.

The difficulty in the way of packing a tube-preparation is the actual tubing process, and although expensive tube-filling machines may be purchased, I overcame the difficulty in a very simple way. I took a 2-pint enamelled-iron round douche-can, attached 3 in. of douche-tubing to the nozzle, and closed the tubing with a burette-clip. I next cut a round piece of wood to fit nicely into the top of the can, and to this I attached a handle, so that the whole thing worked up and down like the piston of a syringe. To fill the tubes the can was slightly warmed and the cream put into it. Then when the tubes were brought into position under the spout, pressure on the piston and the burette-clip enabled them to be filled with the requisite amount of cream without mess or much trouble. After filling the tubes were closed with a special pair of pincers having very broad, flat jaws, and after getting a coat of tr. benz. co. were ready for labelling. In this preparation I found it best not to make too much at once, and care is required in order to get a smooth homogeneous mixture.

Now we come to the get-up or style of the speciality. Style is your passport to the public, and a good appearance is better than many words. Style in externals is of the greatest importance in toilet-preparations; to appeal to the pocket you must first appeal to the eye. Your label must be good and attractive, neither gaudy nor cheap-looking. The best way to label a tube is to have the label printed on a sheet of paper large enough to overlap, and to fold over the end. This gives the best finish if done neatly. It is best to use a carton for packing tube-preparations. It is better for display purposes. It gives you three sides for advertisement besides the front for the preparation itself. A carton will stand up, will keep the tube clean, and though perhaps it costs a halfpenny, it adds at least a penny to the value of the article. And perhaps the greatest argument in favour of a carton is that advertising matter may be enclosed in it. If a preparation is nicely packed with labels and containers that harmonise, it almost sells itself if well displayed on the counter. I have heard customers say, "How nice these

things look; I must try one." But cheap, untidy and unattractive-looking articles will never sell well, even though extensively advertised.

Having got our preparation made and packed, the business before us is to sell it. To do this some form of advertisement is necessary, for if you do not talk about your goods people will never hear about them. Advertisement has many forms, but only one object, and that is to sell the goods. To do this you must have the right goods to sell, for it is a bad advertisement to sell bad goods. It is better not to advertise at all than only to advertise in spasms. Advertisement to be effective must be continual. The best advertisement is that which convinces the greatest number of people. It is not the one upon which you spend the most or the least money. How to reach the greatest number with the least expenditure is the secret of successful advertising. I think one of the best methods of increasing the sale of a proprietary is by judicious sampling, but this method is also one of the most expensive. Handbills placed in every packet which leaves the pharmacy are also effective in persuading the public to buy, but they must be good bills.

If you have any talking powers at all, write your bills yourself, and do not depend on stock phrases: stick to facts, say what you mean, write as if you were talking to your customer, then cut it down to the minimum of matter. Make a point of cutting 500 words down to 250, and you will be surprised at the simplicity and directness of the result. Such bills distributed upon every conceivable occasion, with accounts, receipts, goods, etc., will help very considerably to extend the sale of the article they advertise. If you use testimonials, see that they are genuine. Do not do as a chemist whom I knew used to do. First he obtained samples of notepaper headings from his printers, then got his servant-girl and her friends to write testimonials on them, and these he displayed in his window. Newspaper and magazine advertisements do not, in my opinion, pay for themselves except in special circumstances.

Finally, there is that undefinable quality known as salesmanship to be taken into account, which in the end may make all the difference between the success or failure of a speciality. Any shopkeeper can sell his public what they want, but a salesman will sell them what he wants them to have without their seeing the difference. I do not mean that he will practise substitution, but that he will simply persuade them to buy the article he is most anxious to sell. That is not necessarily detrimental to the interests of the purchaser. In the main the public are not set on one particular article, but are willing to trust to the recommendation of a tradesman on whose word they can depend. And it is perfectly legitimate trading for any man whose opinion is asked to recommend his own preparation in preference to any other, for, apart altogether from the question of extra profit, he can do this the more honestly because he makes it himself and is well acquainted with its virtues.

In attempting to establish a proprietary Patience, Persistence, and Perseverance are qualities which will be found invaluable. Any efforts that are made must be sustained if success is to be assured; and if there is one truth which is more applicable to all branches of business than another it is this: To make a customer is good, but to keep one is infinitely better.

**A USEFUL ADVERTISEMENT.**—The following telephone card, fitted with an eyelet, is supplied to his customers by a Harrogate pharmacist:

TELEPHONE.						
When requiring						Call
Fire Brigade	...	...	...	...	...	...
Police Station	...	...	...	...	...	Police
Ambulance	...	...	...	...	...	Ambulance
<b>A. MORTIMER,</b> Dispensing and Family Chemist, St. James' Pharmacy, Leeds Rd., Harrogate.						832

The space below is ruled for the addition of telephone numbers in constant demand.

## The U.S. Bureaus of Chemistry and Plant Industry at Washington.

*Being a record of impressions and observations by Mr. William Mair, F.C.S., during a visit to the Laboratories in September 1912.*

So much interest has been shown recently in the subject of medicinal-plant cultivation and improvement, particularly in the progress attained in that direction by the United States Government, that a brief description of a visit paid to the highly organised Department of Agriculture at Washington, D.C., last "fall," is opportune. Many of the nearly two hundred bulletins which have been issued by the Department through its Bureau of Chemistry from time to time—some of intimate pharmaceutical interest—have been summarised in *THE CHEMIST AND DRUGGIST*; and the quite national reforms in foods and drugs instituted by Dr. Harvey W. Wiley, while Chief of the Bureau, are well known. It will be remembered that a perhaps less widely known but equally important section of the activities of the Department, that of the Bureau of Plant Industry, whose work also has been recorded in this journal for some years past, was referred to by Sir Edward Evans in his Presidential Address at the Edinburgh meeting of the British Pharmaceutical Conference, with the recommendation that the

rooms are about equally apportioned to food, as distinct from drug, laboratory work. Over one hundred and twenty chemists and other scientific experts are employed here, besides other laboratory workers, and a large clerical staff—about four hundred in all. On the fourth floor is situated the office of the Chief of the Bureau, and the library and office departments occupy the remainder of the floor. The Acting Chief is Dr. R. E. Doolittle, who, while in charge of the Inspection Laboratory at New York (controlling the entry of all drugs and medicaments at that port), made a special study of crude drugs, devising many new tests and instituting new and reasonable standards in reference to limits of ash, alkaloids, and volatile and non-volatile extractives. To him my acknowledgments are due for the opportunity to visit the Bureau, as well as to Dr. Kebler, Chief of the Division of Drugs, for personal guidance through the laboratories.

Recently (*C. & D.*, January 4) President Taft has appointed Dr. Carl L. Alsberg, one of the chemical biolo-



DR. R. E. DOOLITTLE.



CARL L. ALSBERG, M.A., M.D.,  
successor to Harvey W. Wiley  
as Chief of the Bureau of Chemistry.



LYMAN F. KEBLER, PH.C., M.D.

British Government should institute improved facilities for the encouragement of medicinal-plant propagation and intelligent collection within the Empire. That has, of course, so far materialised in the presenting of evidence on drug and aromatic plant cultivation to the Royal Commission inquiring into the natural resources and trade of our self-governing Colonies.

The Bureaus of Chemistry and Plant Industry, which more directly interest pharmacists, are sections, as has been indicated, of the Department of Agriculture, which, established in 1862, was intended to embrace that subject "in the most general and comprehensive sense." That is, doubtless, why there is no independent Department of Chemistry, such as our own Government Laboratory. The Agriculture Administration also takes care of the weather, forests, insecticides, animal industry (the biochemical division of which prepares tuberculin and mallein, and furnishes these free of charge to health officers for use in official tests), entomology, biological survey (geographical distribution of plants and animals), statistics (crops and economics), soils, and roads; and, in addition, prints its own publications, this alone costing 100,000*v.* a year, and employing a large literary, artistic and photographic staff, the latter for the preparation of illustrations. The Department is located in the fine new white marble buildings seen in the photographs. The Bureau of Plant Industry is already housed there, but

### THE BUREAU OF CHEMISTRY

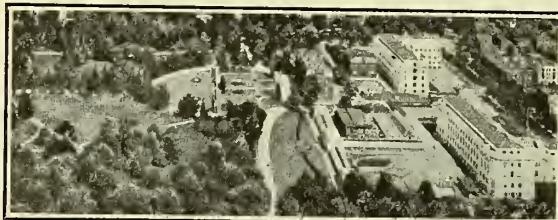
at present occupies a rented six-storey building, of which a photograph is also shown. Its eighty work-

gists at the Bureau of Plant Industry, to succeed Dr. Wiley as chief of the Bureau of Chemistry. Dr. Alsberg's work has hitherto had to do with investigations on stock-poisoning plants.

There is a pharmacological laboratory, extremely well equipped with physiological apparatus; others are devoted to animal physiological chemistry, plant physiological chemistry, and bacteriological chemistry; and there are a microchemical laboratory (albums of beautiful photomicrographs were being prepared by clever lady assistants), a sugar and a water laboratory, and a nitrogen section equipped with an oxidation battery of fifty burners. The chemistry of wines and of foods is in charge of experts. Space will not permit of description of the unusually fine laboratory equipment: every working bench has gas, water, steam, vacuum, pressure and electric connections and means for equalising temperature.

The section affording most interest to the pharmaceutical visitor is that, already mentioned, dealing generally with drugs. Under the direction of Dr. Kebler, this division of the Bureau of Chemistry is engaged in studying the composition, adulteration, misbranding or misrepresentation of drugs, chemicals, and medicinal preparations, with special reference to the enforcement of the Food and Drugs Act of 1906, which was largely the outcome of the uncompromising stand taken by this Department of the Government for the national betterment, the suppression of fraud, and the enlightenment of ignorant producers. Very many new tests and standards have been devised and published, involving long and patient research, and

much valuable work has been done which in this country is left to private initiative.

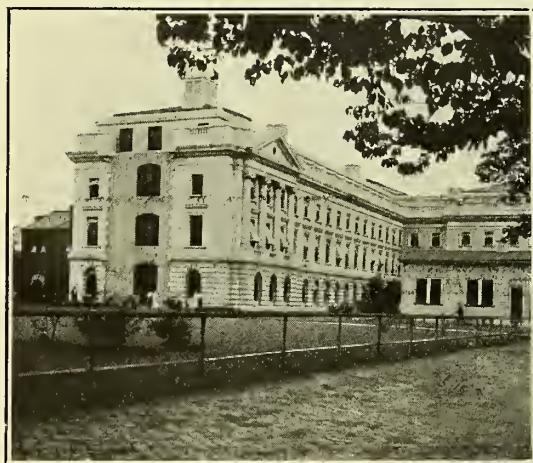


BIRD'S-EYE VIEW OF DEPARTMENT OF AGRICULTURE.

Immediately associated with Dr. Kebler are the chiefs respectively of the drug-inspection laboratory, the synthetic products laboratory, and the essential oils labora-

or 40,000 or so of American "patent" medicines and proprietary articles. Pending this reform, the Government in November last ordered warrants for the arrest of 175 manufacturers, some of them men of considerable substance, chiefly of "cures" for cancer, epilepsy, and the like, of the mail-order type, on the ground that they were "using the U.S. mails for illegal purposes"—namely, disseminating matter which the Division of Drugs considers to be a fraud upon the public.

But other researches of the Division—much more congenial to Dr. Kebler and his staff than soothing-syrups and "dopes" and catarrh-snuffs, well calculated to induce a good going cocaine habit—are such actual classics as their "Toxicity of Caffeine" (a monograph of 100 octavo pages) and such "Technical Drug Studies" as "The Purity of Glycerin" (on account of its extending use in medicinal agents the product of fourteen manufacturers, including one English and one German, was reported on: it had been claimed that the pharmacopœial standard of purity was too rigid; some were advised to



UNITED STATES DEPARTMENT OF AGRICULTURE.

Nearer views of the fine new white marble buildings. It will be noted that it is evidently intended to join them up into what will ultimately be a magnificent quadrangle.

tory. It is not too much to say that the Division of Drugs, so complete and so thorough in its administration—with the twenty-two closely associated branch food and drug inspection laboratories of the Bureau, covering all the United States and territories and the District of Columbia—has practically become a tribunal, from which there is no appeal, as between manufacturers and producers of medicaments, of every form and class, and the public. There is a referee board of consulting scientific experts, entirely unconnected with the State, of which Dr. Ira Remsen, of Baltimore, is President. This board considers scientific questions of broader import, and has lately made an exhaustive report to the Secretary for Agriculture on the healthfulness of saccharin and of sulphur in food products.

Dr. Kebler is the author of many reforms that have been so far effected, and of the exposure of many heartless frauds; his anti-quack museum contains an amazing collection of "cures" for consumption, incurable diseases, cancer, and drug addiction. Among the latter are preparations containing large amounts of the actual drug—alcohol, morphine, or cocaine—which the treatment is held out to remedy. Only lately, in pursuance of his powers under the Federal Food and Drugs Act, he has had the satisfaction of seeing the law strengthened to prohibit fraudulent statements regarding medicinal claims, names, or place of origin. Already the Act prohibits any such misleading claims that appear on the label (or accompanying literature) regarding composition, and it is hoped to have the law further amended to prohibit some of the outrageous falsehoods regarding their therapeutic efficiency that are published in advertisements of *some* of the 30,000

discontinue the designation "C.P."), "Separation and Identification of Small Quantities of Cocaine," "The Determination of Molybdc Trioxide," "Character of



THE BUREAU OF CHEMISTRY.

Samples of Beeswax" (in relation to contract prices), "A Method of Testing Ammonium Salts" (in presence of formaldehyde), "Two Important Alkaloidal

Reactions" (new and valuable tests for small quantities of nearly all vegetable alkaloids likely to be met with in the analysis of medicines in forensic work), and "A Chemical Investigation of American Spearmint Oil" (chiefly to determine the nature of the odorous constituent, which was found to be acetate of dihydrocarveol). These have all been published within recent months, as has also "An Examination of Hydrogen Dioxide Solutions" (from thirty-six makers; 115 samples; the results of three years' work, running to twenty-three octavo pages). This was to determine the actual value of acetanilide as a preservative. It was proved that it is not uniformly successful, and not altogether necessary, to prevent or retard decomposition, or as an antiseptic, and that hydrogen dioxide solutions containing it sooner or later develop a yellowish or brownish tint and an odour resembling nitrobenzol. Manufacturers were advised to keep within



DR. BEVERLY T. GALLOWAY.

the U.S.P. limit of acidity, in view of the fact that hydrogen peroxide solutions are largely used as mouth-washes: it was shown that an excessive amount of acid would of necessity exert an injurious action upon the teeth. A time limit of six months from the date of manufacture was also advised.

It will thus be seen that there is a very wholesome measure of what is practically co-operation towards improvement in standard products, with all the principal manufacturers of the United States. That is to say, inquiries are not conducted for the benefit of individuals or any small group of individuals.

#### THE BUREAU OF PLANT INDUSTRY,

organised in 1901, is constituted of no fewer than thirty distinct scientific departments. It is controlled by Dr. Beverly T. Galloway, and studies plant life in all its relations to agriculture. Among these departments are those of plant pathology, crop physiology, soil bacteriology, and plant nutrition; there is a very large annual Congressional distribution of seeds and plants, and another branch of the Bureau is connected with the introduction and establishment of new plant industries. The phase of the work most directly interesting to us, however, is that of the physiologist—Dr. Rodney H. True—who has charge of the commercial culture of drug-producing crops and tea, and investigations on plant physiology and fermentation. Dr. True is assisted by a staff of four physiologists and five or six chemical biologists and botanists and other experts, and clerical staff. The preparation of exhaustive monographs on the whole of the indigenous drugs—on the cultivation, collection, and in many cases necessary conservation—is in the able hands of Miss Alice Henkel, and has so far included the wild medicinal plants and provement in standard products, with all the principal barks and American root-drugs. Among other achievements of Dr. True in the direction of encouraging the domestication of wild drug-plants and the cultivation of many drugs which were formerly entirely imported, has been the successful growing of the camphor-tree in Florida. Experiments are thus constantly in progress in widely varying latitudes, as well as in the extensive gardens of the Department of Agriculture, and other stations near Washington.

Cultural directions are now issued regularly to farmers and others who desire to grow, for example, belladonna and digitalis for the market, and they are periodically advised as to the current market value of these and other drugs, and the probable demand. The large export

of ginseng-root to China, valued at over 200,000/- a year, is a constant source of inquiry from would-be growers: an illustrated circular is issued explaining fully the cultivation, collection, and marketing, but the Department adds significantly that they have no seeds or roots of ginseng for distribution; they also advise growers to look at their prospects with conservatism.

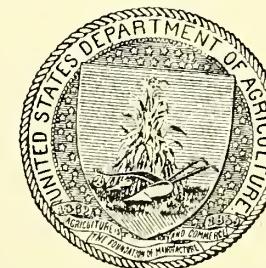
Analyses of medicinal plants and all strictly chemical research are made for the Bureau of Plant Industry by the Division of Drugs at the Bureau of Chemistry. So that all the work just described on the cultivation, improvement, and distribution of drugs and drug-plants, under the immediate control of the Government, is closely correlated on exceedingly enlightened lines and with a full appreciation of commercial conditions and requirements. This, again, is in intimate co-operation, at many points, with the Council of



DR. RODNEY H. TRUE.

Pharmacy and Chemistry of the American Medical Association. Much of the work at present in hand is in the direction of developing modes of analysis and acquiring data upon which uniform methods and standards of composition, quality, and strength may be based; much of it doubtless will be included in the new U.S. Pharmacopœia, which is expected in 1914. The changes in composition or deterioration, due to age and other causes, of crude drugs and finished products are also closely studied. This practical grasp of therapeutic requirements is doubtless accounted for by the considerable number of pharmaceutical chemists on the staff and stationed at the branch laboratories for the examination, if not interception, of drug-products at every possible port of entry in the United States. The result has been a remarkable improvement in shipments of many articles within the past two or three years. To mention only one or two: Belladonna root and leaves, which four years ago were heavily adulterated with phytolacca and scopolia, are now practically free of these; the importation of *Hyoscyamus muticus* as henbane has entirely ceased; the substitution of calendula florets, dyed with aniline, for saffron, and the weighting of saffron with inorganic material, formerly in vogue, have been discontinued. Much has been done in advising importers, and through them collectors, where inferior quality has been due to improper and careless collection and curing rather than to actual adulteration.

Most important of all, it will be seen that the necessary research and new and original work are prosecuted on broad and well-defined lines with ample Government resources and facilities.



"THE CHEMISTS' DICTIONARY of Medical Terms and Treatment" is full of useful information, and is an excellent half-crown's worth. Published by THE CHEMIST AND DRUGGIST, and also obtainable from wholesale houses.

## Wanted: A Business.

By Wilfred S. Mare.

SEVEN years ago I hankered for a business of my own; I was weary of being only an employé. Only this year have I become a proprietor. Wherefore I consider I have had some experience in the matter of purchasing a chemist's business.

Please don't picture me scurrying north, south, east, and west, spending seven years searching for a place wherein I might stand as sole proprietor. I had attacks of "proprietoritis," with convalescence and recoveries, subject to relapses.

I remember my first attack of proprietoritis. I had been through a good-class training in London and the provinces, had a spell of locum work, and thought I had little else to learn. I had but to get a start and my vast experience would soon be converted into pounds, shillings, and pence—possibly millions.

Quite early in my researches I was struck with the number of men who were "going abroad"; every other chemist seemed to be selling on that account. In one case which I avoided the seller went as far "abroad" as the next ward of the city. Usually a proviso in the agreement should prevent such a catastrophe for the purchaser. Often enough, however, young proprietors grow tired of the confinement and seek the wider life of the Colonies, and in this crowded island of ours it is as well that the old Viking blood sometimes stirs. I have often wondered how one chemist I interviewed succeeded in a new land; I was not struck with his suitability for the colonial venture. His business was to be found in a little market town in Westshire; it was a most desirable concern—on a market day. But he was too busy to see me on a market day; I had to visit him on an ordinary day—at least, I presumed it was ordinary.

I entered the shop and a bell rang, but no one appeared to take the slightest interest in the tinkle of the metal. I walked around heavily, coughed in deep bass and shrill treble, rapped doors, tapped counters with a five-shilling piece, and finally executed a hornpipe in the middle of the floor. The latter expedient brought something to the surface; a touzled head rose from behind the counter, and there was the sound as of a trap-door closing. The owner of the head hoped I had not waited long, and remarked genially that they took things quietly in that part of the world. Yawning, he inquired whether I should like to look round. I responded that as I had travelled some twenty-five miles with a view to buying his business I certainly should like to inspect the premises.

At once he was all alert, said he had not realised who I was. So anxious was he to show the glories of the premises that I was rushed around in a sort of canter, and only once did we draw rein. The *pièce de résistance* was on old hairdresser's chair, a dirty towel thrown across its arm, and a spittoon at its foot.

"I do an immense amount of dentistry," said the proprietor.

"You may!" I remarked, quietly but firmly, and stampered for my train.

I happened to hear the subsequent history of that business. It sank lower and lower till it was sold at a mere song to a company who, by up-to-date methods, are able to exist where an old-fashioned chemist would fail.

After my Westshire experience I avoided market towns for a time and explored the outlying districts of my own city, asked older chemists whether they didn't think it was time they retired, corresponded with agents, badgered every commercial traveller I could get in touch with, travelled over my native county and the neighbouring counties till I was an authority on the railway lines of the South of England.

My final visit in that bout of proprietoritis was to a pharmacy in a large health resort. The shop faced a back wall of a mews, and had been in its owner's hands six months—as I found after much pressing. Further re-

search revealed the fact that the former proprietor was at the moment in a lunatic asylum!

I was cured of that bout of proprietoritis.

But it is worth while to note the upshot. I was told there was someone else after the business (there always is "someone else") if I did not see my way clear to purchase. There really was "someone else," and that someone else has converted it into a splendid little business and is making money. After all, it is the man who counts. If he is the right man! A store-trained assistant should not try to run a first-class pharmacy, a travelled locum should not settle in an agricultural townlet, a nature-loving student should not purchase a Black Country shop, a West-end dispenser should not seek for a South Wales dockers' druggery.

You say that men are not likely to do such rash things as I have just enumerated, yet, for a year or so, I stood aside from the competition and watched such mistakes made.

Thus, perhaps, it was that my next attack of proprietoritis took a different form. I determined that, as I could not find a business to suit me, I would *make* one. So I prospected for a likely locality to open a pharmacy, scoured the promising neighbourhoods, calculated distance from the nearest chemist, watched at street corners like a conspirator, noted how many people passed a certain spot in a certain time, interviewed landlords as to the conversion of, say, a butcher's shop, into a select pharmacy. The ground, however, seemed covered wherever I turned. Eventually I decided, too, that to open a business one needs enough capital to sit tight and wait a year or two; and my capital was small. Besides, I didn't appreciate the Sawyerlike method of sending out bottles to imaginary clients for the first few months; it struck me as a method that might pall. I almost purchased premises in order to provide a rising sea-coast village with a chemist's shop. The landlord said the place would boom; it has not even whispered yet.

There are agents and there are the opposite. To one gent I wrote: "Please understand I am not exhibiting a notice 'Rubbish shot here.'" He had given me a glowing account of a splendid little business whose owner was reluctantly retiring. And this unqualified man's business was in the depths of a city slum. In justice to the agent fraternity I must say that of the pharmacy I eventually did purchase I had details through an agent.

I went to visit a business that I had heard of through a commercial traveller. It was, say, in Staffordshire, and its owner gave the returns as 600*l.* per annum—a sanguine forecast of what might be. I said good-bye to its kindly owner, sorry that I could not do business. A fortnight later I received particulars of a delightful business that was—so I was told—being given away in Derbyshire, with returns at 800*l.* per annum. On further treaty I discovered the remarkable fact that the business was no other than the one I had inspected a fortnight before. The identical premises had changed their county and the business had increased its returns 200*l.*—in a fortnight!

One very tragic experience came my way. An old chemist had died suddenly, and immediate sale was desired by his widow; indeed, the shop was closed till someone came forward to buy it. I inspected the grim premises, and had not the heart to refuse the bereaved relative point-blank; I made a ridiculously low offer. Next day I received a telegram saying an offer had been made—would I give 10*l.* more? I telegraphed that the other man might have it. He did. And died within a week.

If ever such a prosaic place as a chemist's were haunted, I think that shop must be, and I was not surprised to discover that it never sold again.

To sum up a somewhat discursive article. First let the prospective purchaser take stock of his capital. Unless he is very certain of his ground (and reliable business friends are certain too), do not let him go into business with excess of borrowed capital. Better take a small shop than—taking the rosiest possibility—grow grey and old

and nervous in a large concern that may win you a fortune your health will not let you enjoy.

Having determined your available capital and what you may safely borrow, look around and see what is offered for that total. You will be surprised at the different moneymen exhibited: some old man who has made money in his business (which has latterly become mouldy) will price his pharmacy at the golden-day figure; another retiring druggist, with jaundiced eye, will consider that his white elephant of a business will never pay and will almost hesitate to ask the price of the stock.

Having decided on the business suitable to your capital, commence at the beginning again and consider whether you yourself are suited to the prospective purchase—will you be able to inspire the doctors' confidence in such-and-such a dispensing pharmacy? Can you impress the mothers and wives in this working-class neighbourhood? Are you a brisk enough salesman for that cash trade?

Finally, make sure of every detail in regard to the landlord, length of lease, drains, prior history, etc. The *C. & D.* book, "Opening a Pharmacy," gave me many tips in this direction. One case I must recall, as I so narrowly escaped. A business had been ruined by a law-court case, but to the newcomer seemed a wonderful bargain. I happened to go as locum to the very town and heard all details; I saved another man from letting himself in; but a third swallowed the bait, and he will take years to restore the citizens' confidence in that particular business.

Prospects being, if not very rosy, at least sound, put your whole heart into your purchase, and the time may come when you again want a business—a bigger one.

## Poisoning Animals.

Reminiscences by a Chemist in China.

I OFTEN tell the story that I read in the *C. & D.* some years ago about the ever obliging chemist's assistant who said, "With pleasure, Madam," to the lady who asked him to put her "darling little Fido" out of his misery. "With pleasure, indeed!" was the reply, as she walked out; "you nasty, cruel man, you shall not do it!"

We are often asked to give a pet cat or dog a "prussic-acid cocktail" in this country, and usually charge a dollar for running the risk of being bitten or scratched. I remember on one occasion a dog was brought along on the chain, and when poor doggie had laid down and "breathed his last" the Chinaman commenced tugging at the chain and whistled to him to get up. On being informed that the animal was dead, he became furious, for the natives are very superstitious; he thought he was bringing him to be cured, instead of which that dog's spirit would now haunt him for the rest of his days.

A Chinese servant came in one day gripping an empty straw basket round the neck, and presented a letter from his master (an Englishman) requesting me to poison his cat. He, too, thought he was bringing the cat to be cured, and was in a very troubled state of mind, for pussy had managed to scratch a hole through the basket and make good her escape into some warehouses on the way to my pharmacy. When enlightened as to the purport of the letter his face beamed into a broad grin, and he exclaimed: "Oh, so fashion! Dat belong allo plopper, mastah, he no savee [won't know], spouse he tinkee he gave makee die!" Nothing more was heard of the matter till about a week later, when the owner telephoned to ask whether it was his cat or its ghost that had found its way home. Matters were explained, and that time pussy did not escape.

It is remarkable what a different action HCN has on dogs and cats. The former will walk a few feet and fall down, where the latter usually make a mad rush for some yards; perhaps it takes longer because of the proverbial nine lives. The method I have adopted for some time is to get the servant to place the animal in an old wooden box, throw in a wad of cotton saturated with chloroform, and when all is quiet within, squirt some prussic acid down the animal's throat, just to make sure of a "good job."

## Fruiterer and Pharmacist.

ACCORDING to ancient custom the Worshipful Company of Fruiterers of the City of London installs its new Worshipful Master on St. Paul's Day, January 25. This year the honour has fallen to Mr. John Cooke Hewlett, F.C.S., Chairman of the Board of Directors, Messrs. C. J. Hewlett & Co., Ltd., manufacturing chemists and wholesale druggists, Charlotte Street, Great Eastern Street, London. January 24 is on this occasion the appointed day when, after the installation, the Master and Wardens of the Company will entertain the Lord Mayor and Sheriffs, as well as members of the Company and friends, to dinner at the Haberdashers' Hall, Gresham Street.

The company was in existence in the thirteenth century, if not earlier, as Mr. Arthur William Gould shows in his sumptuous history which was published privately last year. It received its first charter from King James I. (1605), at which time the Company was regarded as "a very ancient brotherhood." Like all the Companies and Guilds of London this fraternity was inaugurated as a benevolent and protective institution, having a certain measure of control of the fruit trade of London, the Company being the fruit-meters of the port.

The records of the City of London Corporation since the sixteenth century contain references to "the very ancient custom" of the annual presentation of fruit by the Company to the Lord Mayor. In 1850 this consisted (we quote from a City record) of twelve bushels of apples of various kinds of the finest description that can be procured.

When the presentation was made on October 26, 1911, the Lord Mayor, in proposing the health of the Fruiterers' Company, pointed out that at one time it was the custom for fruiterers to pay to the Lord Mayor a certain tribute of fruit from each parcel brought into the City; now instead of the tithe an annual gift of the best home-grown fruits of the season is substituted.

In 1882 the Company entered on a practical scheme for the encouragement of profitable fruit-growing by offering a prize of 20*l.* for an essay, which was replaced later by a scholarship of 50*l.* per annum. The Company also publishes a series of books in connection with fruit culture.

Mr. Hewlett has been a member of the Company since 1869, and is the first pharmacist to become its Master. Our portrait shows him in the Master's robes, wearing the badge of office, which incorporates the arms of the Company—namely, "Azure, on a mount in base vert, the Tree of Paradise environed with the serpent between Adam and Eve all proper." In the badge this is environed by a wreath of foliage and fruit and the second motto of the Company, *Deus dat incrementum.*



MR. J. C. HEWLETT, F.C.S.

## A Minor Comedy.

IT had long been my ambition to attend an entertainment at the Bloomsbury Palace of Varieties, No. 17 The Square, but its realisation was long delayed by a variety of causes—the necessary booking-fee, the assurance, the self-command requisite to all who enter by the Pit in Galen Place.

I had often been in by the Stalls entrance in Bloomsbury Square to see the side-shows in the Museum, and had also attended an evening *scânce* there, when I saw several of the leading "Stars." These, however, were but preliminary to the show-day, or Double Show-day—if you are lucky. Two whole days, and not a dull moment all the time!

### I.

I rose early and retired late, striving to absorb the necessary sustenance before my application for admission. Eventually I secured an admission-ticket, and wondered how much of the performance I should be allowed to witness. The payment for the entrance-ticket was not a happy moment, for I could not feel sure that I would get my money's worth. There is a spice of uncertainty in all stage-plays. Having booked well in advance, I received an intimation to the effect that a seat was reserved for me for the last day of December. To describe my feelings on the morning of December 31 is impossible. As I wended my way to Bloomsbury I had a mixed anticipation of tragedy and comedy—the former predominating. I was early at the door, waiting with the chattering crowd (in spite of the fact that my seat was booked). I listened to those round me expressing their opinions of the various artists and their performances on the preceding days. To some the artists appeared to be immortal gods; to others they were Ogres of the fiercest type. In the crowd were some who, like myself, had never been before; others were regular playgoers, and knew all the gags. After being admitted, I addressed an envelope to myself, in order that I might have (if lucky) a ticket of admission for the second day's entertainment.

The First Act opened on a scene of test-tubes and chemical apparatus, for the play was "Practical Chemistry." The star in that particular day's performance was an artist from Devon, of the humorous name of Tickle, and he provided a rather good show in three acts. First came the mystery act, wherein one sees a colourless liquid body in which is hidden a spectre, which you try to find. I quickly recognised a very old friend, an old salt, named "Petre," or, as he is sometimes called, "Pot. Nit." The next scene was rather gory-looking, but as the theme developed, and the grams of iodine per litre in the Tincture of Iodine supplied came to a nice level number, I was quite satisfied. Then came a transformation-scene, in which the celebrated performers "Iron Filings" and "Dilute Sulphuric" took part. They had a heated argument, but presently became fast friends. They changed coats and turned green in an endeavour to become the finest specimen of Ferrous Sulphate Crystals in the Hall. Then came the interval, during which I adjourned for a coffee and bun.

On returning to the "second half," I read the programme, which pleased me greatly, and I settled down for an afternoon's real enjoyment. There were several "star" turns by an artist of whose name I am by no means sure, but I heard it mentioned as "Gulliver." The tales he told were not fairy-tales, however. The first item depicted the touching reconciliation of two life-long enemies—Cod-liver Oil and Cinnamon-water. They were brought together by Gum Acacia, who held them firmly together, and their union looked like being good for ever after. The next item was a screaming farce entitled "Suppos. Morph. Hyd. gr.  $\frac{1}{4}$ . Mitte vj." The idea was so very simple and altogether too funny for words. I was most pleased that it formed an item on the programme. This was followed by a regular old stager, a certain "Lin. Pot. Iodid." Now, he is not always welcomed on such a stage, but on this occasion he acquitted himself fairly well. He was rather fastidious, and insisted on being weighed in the early part of his performance, and also kept reminding us that his particular perfume was Lemon. He was succeeded by a "Feat of Strength" turn, in which Arsenic, Strychnine, and Iron (in reduced circumstances) were bound together by Gentian, and were unable to break away even though rolled out to quite a thin pipe. Then came the "Closing" scene of the First Day's Entertainment, when "Bismuth," "Salol," "Sod. Bicarb.," together with "Ext. Nucis Vomic.," were enclosed in a No. 1 Cachet, and looked quite presentable in their white attire.

### II.

In due course I was informed that the Management had been pleased to present me with a free pass to witness the

Second Day's Show. This was a much more exciting performance than that of the First Day. Then your attention might occasionally wander from the play, but at the Second Day's Performance each artist held you spellbound, and sometimes you were absolutely breathless. Two of the artists I had already seen on my first visit, and perhaps it would be best to detail the performance. First came the aforesaid Gulliver (?) as the Memory Man. He has a book (I believe it is called the B.P.—or has my fleeting mind gone off "Scouting" again?), and he roams through it from Acacia to Zingiberis. Then he switched on to the drying of drugs and their preparation for the use of farm-assistants (Horse-powders barred). After a few funny queries concerning the Tinctures he retired.

The next item was an ever-changing Comedietta entitled "Theoretical Chemistry." This was produced under the direction of the Exeter comedian aforementioned. This is given "in camera," and, judging by the facial expression of the man who had previously witnessed it, it left much to be desired. However, one has to see for oneself. The piece opened with a few very musty and chestnutty jokes treating with common everyday articles, such as Vapour-pressure in Atmosphere, etc. But after a time he warmed to his work, and was most interesting in the story of "The Manufacture of Citric Acid from Lemons." Then he took to Alcohol, and asked if I was aware that Carbolic Acid is a member of that dreadful brotherhood. I assured him that I was, but that I deprecated its employment for internal administration. There was some more by-play with reference to the action of Sulphuric Acid on Carbolic Acid and Ethyl Alcohol, and the humorist retired.

Thereafter the scene rose on a man with a goodly show of weird and conflicting series of odds and ends in little wooden boxes. He played about with these, and among them I found our old favourites "Taraxacum" and "Gentian," but, knowing the sectional characteristic structure of each, the showman was unable to ring the changes upon me. It was the same with "Bay" and "Cherry-laurel" leaves—I was able to avoid deception. He had the finest-looking "Cinchona" I had ever seen, and when I applauded it he seemed quite pleased. Then through the "Reversed Telescope" I saw a stellar structure, and knew it to be an "Ovarian Section," with Axile Placenta. I also saw two more sections—one of a stem, and the other of a root—both of which I knew as old favourites on the Platform. I was treated to a very realistic ramble through the Woods and Flower Gardens by this versatile artist.

The last scene depicted "The Return to Childhood's Happy Days." The "Latin Primer" bobbed up serenely, and I indulged in a few translations and a calculation. Then I was admonished to keep my seat for the "Star" turn. I was contemplating what this new wonder might be, when my name was called. I walked towards the Star, and had to do a little turn all on my own. The "Star" made a little speech, shook me by the hand, and congratulated me on being able to "sit out" the two days' performance. Whereupon the Keeper of Lists—a Mr. Bremridge—entered my name on the Roll of the Great, and my show-days were ended.—G. D., 19/9/12.

## English Peppermint.



Harvesting of English peppermint on the farms of Messrs. W. Ransom & Son, Hitchin. The oil distilled from the plant grown in Hertfordshire has a distinction all its own.

## PATENT SPECIFICATIONS.

Printed copies of the following specifications are on sale (8d. each) at the Patent Office, 25 Southampton Buildings, London, W.C., a fortnight after the notice of acceptance has appeared in the "Official Journal" (Patents) of the given dates. Persons desirous of opposing the grant of a patent must do so in the prescribed form within two months from the date of the "Journal" in which the notice appeared.

### Specifications Accepted.

December 18, 1912.

PROCESS FOR MAINTAINING THE VITALITY OF DRIED YEAST. 16901/12. Ohlhaver.

FINGER-NAIL CUTTING AND POLISHING APPARATUS. 19684/12. Schubert.

MENTHOL CONES. 22939/12. Shirley.

December 27, 1912.

SELF-FEEDING BRUSHES. 27984/11. Webb and Webb.

MANUFACTURE OF AMMONIA AND CATALYTIC AGENTS FOR SAME. 28167/11. Johnson. (Badische Anilin- und Soda-Fabrik.)

MANUFACTURE OF ANHYDROUS TIN TETRACHLORIDE FROM TIN DIOXIDE. 28605/11. Braunlich.

DECOMPOSITION OF PHOSPHATES. 28920/11. Woltereck and Moeller.

APPARATUS FOR CAPPING BOTTLES. 29032/11. Rose Brothers. (Gainsborough, Ltd. (Edmonston.)

MANUFACTURE OF A SWEAT-DECOMPOSING SOAP. 584/12. Pfeiffer.

IODINE SOLUTIONS AND PROCESS OF MANUFACTURE. 1197/12. Wemer.

LIQUID CLEANER FOR LACQUERED ARTICLES. 1847/12. Rosenberg.

STERILISERS APPLICABLE TO SURGICAL AND HOSPITAL PURPOSES. 1916/12. Morris.

BEVERAGE EXTRACTS. 3010/12. Grape Nuts Co. (Post.)

ABDOMINAL BELTS. 5078/12. Lumley.

INSECTICIDES, SHEEP-DIP, VERMIFUGES, AND THE LIKE. 8322/12. McDougall.

MANUFACTURE OF COMPOUNDS OF IRON, PHOSPHORUS, AND ALBUMIN. 13866/12. Imray. (Society of Chemical Industry in Basle.)

GLASS SYRINGES USED FOR HYPODERMIC INJECTIONS. 14288/12. Weiss and Roborat Co.

REGENERATIVE DEVICE FOR RÖNTGEN-RAY APPARATUS. 15171/12. Bauer.

MANUFACTURE OF AROMATIC STIBINIC ACIDS AND THEIR ALKALI SALTS. 16350/12. Chemische Fabrik von Heyden Akt.-Ges.

PROTECTIVE COATING ON METALS. 17676/12. Tonet.

December 31, 1912.

SUBJECTIVE SIGHT-TESTING APPARATUS. 28545/11. Moevius.

ANTI-RHEUMATIC BRACELETS, ETC. 28890/11. Jennens.

RESPIRATORY APPARATUS. 29119/11. Potter.

CHEWING-GUMS. 105/12. Justice. (International Chewing

Gum Co.)

TOOTH-BRUSHES. 6784/12. Harrison.

MANUFACTURE OF ACETIC ACID. 8076/12. Johnson. (Chemische Fabrik Griesheim Elektron.)

FUNNELS FOR FILLING BOTTLES. 12035/12. Von Zakrzewski.

MANUFACTURE OF INNER ANHYDRIDES (LACTAMS) OF ORTHO-AMINO-BENZOYL-ORTHO-BENZOIC ACID. 22440/12. Akt.-Ges. für Anilin Fabrikation.

MÉDICINE FOR ANIMALS AND POULTRY. 24103/12. Wilson & Schabok, Ltd.

### Open for Inspection.

MANUFACTURE, ISOLATION, AND ENRICHMENT OF RADIUM. 3244/12. Ebler.

VAPORISING MEDICINAL SUBSTANCES FOR INHALATION. 23671/12. Fellerer.

PRODUCTION OF PHOSPHATE AND NITRATE OF AMMONIA. 26097/12. Collett and Norsk Hydro-Elektrisk Kvæistofak-  
tieteskale.

PRODUCING WHITE ENAMEL. 26498/12. Heilmann.

CLINICAL THERMOMETERS. 14731/12. Fries.

MANUFACTURE OF INSOLUBLE CONDENSATION PRODUCTS. 18287/12. Pollak.

MANUFACTURE OF CAMPHOR FROM BORNEOL AND ISOBORNEOL. 24779/12. C. Ruder & Co.

PROCESS FOR PRODUCING COPPER OXIDE AMMONIA CELLULOSE

SOLUTION. 24996/12. Borzykowski.

PRODUCTION OF GASEOUS OZONIDES. 27371/12. Knox.

CHOLATES. 27695/12. Knoll & Co.

MILK-LIKE PRODUCT FROM SOY BEANS. 27860/12. Gossel.

METHOD OF TREATING SEAWEED. 27257/12. Penkala.

MANUFACTURE OF TERPENE HYDROCARBONS. 28497/12. Meyer.

MANUFACTURE OF CELLULOID COMBS. 19758/12. Rheinische Gummi und Celluloid Fabrik.

NEW DERIVATIVES OF AMINO-OXYARYLARSINIC ACIDS. 25493/12. Farbwerke vorm. Meister, Lucius & Brüning.

ACETYLATING CELLULOSES AND THEIR PRODUCTS. 27228/12. Chemische Fabrik auf Actien (vorm. E. Schering) and Loose.

PRODUCTION OF LIGHT VOLUMINOUS METALLIC OXIDES. 27718/12. Erdmann.

DEHALOGENISING NITRATES. 28844/12. Uebel.

NEW EFFECTIVE PREPARATION OF MERCURY. 29066/12. Givaudin and Scheitlin.

PROCESS FOR POLISHING SILVER ARTICLES. 29418/12. Wenyer et Cie.

## COMING EVENTS.

This section of the "C. & D." is reserved for advance notices of meetings or other events. These should be sent to the Editor by Wednesday of the week before the meetings, etc., occur.

Tuesday, January 28.

*Oldham Pharmaceutical Association*, Café Monico, Union Street, at 5 P.M. Annual dinner. Tickets (4s. each, including wine) from Mr. W. Gartside, Hon. Secretary, 147 Ashton Road.

*London County Association of Pharmacists*, 17 Bloomsbury Square, London, W.C., at 3 P.M. Executive-meeting to receive report on Insurance dispensing.

Wednesday, January 29.

*Cardiff Pharmaceutical Association*, Angel Hotel, at 3 P.M. Annual meeting. In the evening the annual dinner will be held, for which tickets (6s. each) can be had from Mr. F. Lea, Hon. Secretary, 338a Cowbridge Road.

*Croydon Pharmacists' Association*, Social Hall, Free Christian Church, West Croydon, at 7.45 P.M. Social evening. Tickets (2s. 6d., double 4s. 6d.) from Mr. C. Dickinson, 119 South End, Croydon, and Mr. J. Shaw, 304 London Road, Thornton Heath.

*Liverpool Chemists' Association*, Royal Institution, Colquitt Street, at 8 P.M. Annual meeting and election of council.

*Public Pharmacists' and Dispensers' Association*, St. Bride Institute, Ludgate Circus, London, E.C., at 8 P.M. Annual general meeting.

*Scarborough Association of Pharmacists*, Brooklands, Esplanade Gardens, at 8 P.M. Annual dinner. Tickets (3s. each) from Mr. G. H. Meadley, Hon. Secretary, 9 and 11 Gladstone Road.

*South-East Essex Pharmacists' Association*, Hotel "Victoria," Southend-on-Sea, at 7.30 P.M. Annual dinner. Tickets (6s. single, 10s. 6d. double) from Mr. R. P. Page, 136 Broadway, Southend-on-Sea.

*Western Pharmacists' Association*, Restaurant Frascati, Oxford Street, London, W., at 9 P.M. Mr. E. Cannan Ryall, F.R.C.S., on "Genito-Urinary Diseases."

Thursday, January 30.

*North London Pharmacists' Association*, Northampton House, St. Paul's Road, Highbury, N., at 8 P.M. Dr. E. H. Shaw on "The Therapeutic Use of Micro-organisms."

*Chemists' Assistants' Association*, 73 Newman Street, Oxford Street, London, W., at 9 P.M. Social evening.

*Cheltenham, Gloucester, and District Pharmacists' Association*, Plough Hotel, High Street, Cheltenham, at 9 P.M. Annual meeting and election of officers.

*South-East of London Pharmacists' Association*, the "Green Man" Hotel, Blackheath Hill, S.E., at 7.45. Whist-drive. Tickets (2s. single, 3s. 6d. double) from Mr. W. Chas. Sayers, 63 High Street, Lewisham, S.E.

Friday, January 31.

*Institute of Chemistry*, Chemical Lecture Theatre, University College, Gower Street, London, W.C., at 8 P.M. Mr. W. J. A. Butterfield on "Chemistry in Gas-works."

**JUNIOR PHARMACY BALL.**—The thirty-second annual ball will take place on March 5 at the Portman Rooms, Baker Street, London, W. Tickets from Mr. B. R. Wilkinson, Hon. Secretary, 23 Cromwell Place, South Kensington, S.W.

**NORTH KENT PHARMACISTS' ASSOCIATION.**—The next social evening on February 12. Tickets (double 3s. 6d. single 2s.) from Mr. W. E. Clarke, Ph.C., 85 High Street, Strood.

**HALIFAX CHEMISTS' ASSOCIATION.**—The annual dinner will be held at the Plummets Line Hotel on February 6, at 6 P.M. Tickets (3s. 6d. each) may be had from Mr. R. V. Sutcliffe, Hon. Secretary, 64 King's Cross, Halifax.

## TRADE REPORT.

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities. Retail buyers cannot, therefore, for these and other reasons, expect to purchase at the prices quoted here.

### 42 Cannon Street, London, E.C., January 22.

AS the literary portion of this issue closed for press on Wednesday evening, supplementary markets and a full report of the drug-auction will be found in our Coloured Supplement. Business during the interval has been quiet in the "open" markets, with the bulk of price-changes of minor consequence. Most wholesale drug-gists are very busy, however, in consequence of the operations of the medical benefit under the National Insurance Act, which is likely to give an impetus to the consumption of medicines. Citric acid is again dearer, and the citrates follow, including ferri et quin. cit. Considerable sales of Japanese peppermint oil have been made, and menthol is also tending firmer to arrive, for reasons given under that paragraph. Pending the bark-sale at Amsterdam, quinine has been quiet, but the undertone is very firm. Japanese refined slab camphor is firm. Russian cantharides and cevadilla seed show a firmer tendency. Milk-sugar is flat and easier. Potashes are much dearer, and refined spermaceti is very firm. Angostura torka-beans are offered at very low rates. Among seeds, canary is scarce and dearer, caraway lower, and fenugreek easier. A revision in prices of some American barks, roots, etc., show a firmer tone in serpentine, wahoo-bark, blueflag, and podophyllum; wild-cherry bark and elecampane are easier. The chief alterations are as follows:

Higher	Firmer	Easier	Lower
Canary seed	Ammonia sulphate	Elecampane	Caraway seed
Citrates	Benzols	Fenugreek-seed	Copper
Citric acid	Blueflag root	Milk-sugar	sulphate
Ferri et quin cit.	Guinea grains	Wild cherry	Red lead
Potashes	Mandrake	bark	Vanilla
Serpentine	Menthol		White lead
	Shellac		
	Wahoo bark		

### London Markets.

**AMERICAN DRUGS.**—The following are current quotations for original packages of barks, herbs, leaves, and roots for shipment from the U.S.A. on c.i.f. terms, to arrive unless otherwise indicated : *Barks*.—Bayberry, 30s. to 32s. per cwt.; black haw of root, 10d. per lb.; dogwood,  $4\frac{1}{2}$ d.; elm,  $5\frac{1}{2}$ d.; euonymus or wahoo of root, 1s. 6d. net (on spot); sassafras, 7d. (on spot); wild cherry, 4d. net to arrive; witch-hazel,  $2\frac{3}{4}$ d. *Herbs*.—Scullcap, 9 $\frac{1}{2}$ d. *Leaves*.—Damiana,  $5\frac{1}{2}$ d.; witch-hazel, 3 $\frac{1}{2}$ d. *Roots*.—Blue flag, 9d.; elecampane,  $4\frac{1}{2}$ d.; gelsemium, 3 $\frac{1}{4}$ d.; culvers, 8d.; mandrake, 33s.; bloodroot, 5 $\frac{1}{2}$ d.; serpentine, 1s. 7d. net on spot; and stillingia, 4 $\frac{1}{2}$ d. per lb.

AMMONIUM CHLORIDE is firm at 31s. per cwt. for large crystals.

ANISEED is unchanged at 24s. 6d. to 26s. per cwt. on the spot for common to good Russian.

ANISE OIL (STAR).—Red Ship brand is quoted 7s. spot, and 6s. 4d. c.i.f. to arrive.

**ANTIMONY.**—English regulus is quoted 36*l.* to 38*l.* per ton, less  $3\frac{1}{2}$  per cent., and foreign 33*l.* net. *Crude* is quoted 14*l.* 10*s.* per ton afloat and 15*l.* c.i.f. for February-March shipment.

BALSAM, CANADA, since last quoted, has advanced to 3s. 8d. per lb. net in cases in tins, on spot.

BALSAM TOLU is quoted 3s. 6d. per lb. on the spot, being firmer.

CAJUPUT OIL is firm at 2s. 6d. per bottle of 21 oz. for genuine B.P.

CAMPHOR OIL.—Genuine white light Japanese (s.g. 0.87 to 0.89) is firm and scarce at 50s. c.i.f. London, but to arrive quantity can be had at several shillings less.

CAMPHOR (REFINED).—Japanese is firm, the sales including 500 cases slabs for February-June shipment at 1s. 5d. per lb. c.i.f. London parity. A brisker demand is reported from Hamburg for slabs, which offer at 1s. 5 $\frac{3}{4}$ d. c.i.f.; *bells* are quoted at 1s. 8 $\frac{1}{2}$ d., and *flowers* 1s. 5d. to 1s. 5 $\frac{1}{2}$ d. c.i.f. London.

CANARY-SEED is scarce and dearer at 77s. 6d. per quarter for Turkish, and 77s. to 80s. for ordinary to good Morocco.

CANTHARIDES.—Russian show a firmer tendency on the Hamburg market, offering at 3s. 5d. per lb. c.i.f.

CARAWAY-SEED is lower at 28s. to 29s. per cwt. for fair to good Dutch.

CASSIA OIL.—To arrive January-February shipment is quoted 3s. 1d. c.i.f. for 75 to 80 per cent. c.a.; on the spot, 70 to 75 per cent. is quoted 3s. 6d.; 75 to 80 per cent. 3s. 8d., and 80 to 85, 3s. 9d. per lb.

CEVADILLA-SEED has a firmer tendency, January-February shipment offering from Hamburg at 6 $\frac{1}{2}$ d. per lb. c.i.f.

CINCHONA.—The shipments from Java to Europe during the first half of January amounted to 644,000 Amst. lb., against 277,000 Amst. lb. and 389,000 Amst. lb. for the corresponding periods of 1912 and 1911.

CITRATES.—Owing to the advance in citric acid, makers have raised their prices for *citrates* by 1d. per lb. as follows: Ferri et ammon. cit. and (or) potassium citrate to 1s. 7d. in 1-cwt. lots, 1s. 8d. in 28-lb., the list-price being 1s. 9d. *Sodium citrate* is 1s. 9d. in 1-cwt. lots, 1s. 10d. in 28-lb. lots, smaller quantities being listed at 1s. 11d. per lb.

CITRIC ACID is again higher, the English makers' price being 1s. 5 $\frac{3}{4}$ d. for limited quantities, they not being sellers for forward delivery.

COD-LIVER OIL.—Our Bergen correspondent writes on January 20 that the market continues firmer, and prime non-congealing has lately been sold at 70s. per barrel c.i.f. The reports from the new cod-fishing are still rather scarce. In London no authentic quotations are yet available for new oil; meanwhile 1912 oil is quoted at from 66s. to 67s. c.i.f.

COPPER SULPHATE is much lower at 24*l.* 5s. per ton for the usual Liverpool brands for February-April delivery. The London price is about 25*l.*

CORIANDER-SEED is steady at 11s. 6d. per cwt. for sound Morocco, and 10s. 9d. to 11s. for slightly wormy.

CREAM OF TARTAR is a firm market at 87s. for 98 per cent., and 85s. for 95 per cent.

CUBEB.—The *Kanagawa Maru* has brought 127 bags from Singapore, and 16 bags have also arrived from Amsterdam.

CUMIN-SEED.—Small sales are reported at 21s. to 22s. per cwt. for ordinary to good Morocco. Common Malta is quoted 27s. 6d., and fair 29s. per cwt.

ERGOT.—The recent improvement in prices is maintained, and offers are by no means plentiful from Hamburg. Good current Russian is quoted 3s. 6d. and good current German 3s. 4 $\frac{1}{2}$ d. per lb. net c.i.f.

FENUGREEK-SEED is easier at 9s. to 9s. 3d. per cwt. for good Morocco, according to the quantity required.

FERRI ET QUIN. CIT.—Makers have advanced their prices by  $\frac{1}{2}$ d. per oz., the list price being 5 $\frac{3}{4}$ d. in 25-oz. tins, 4 $\frac{3}{4}$ d. in 100-oz. lots, and 4 $\frac{1}{2}$ d. in 500-oz. lots, with the usual extras for smaller packages.

**GINGER.**—Sales of washed Jamaica have been made at from 58s. to 68s., and in common at 51s.; sellers of Japanese quote 22s. 6d. c.i.f.; in Liverpool the market for Sierra Leone is firmer if anything, with buyers at 22s. 3d. per cwt.

**GUINEA GRAINS** show a slight recovery from the recent lower prices, spot offering at from 57s. 6d. to 60s.

**HYDRASTIS** is quoted 16s. 9d. per lb. net c.i.f.

**LEMON-JUICE.**—English raw pressed, which is very scarce on spot, is quoted 2s. per gallon.

**LEMON OIL.**—It is very difficult to accomplish business at present extreme rates, which appear to have been brought out more by the "squeezing" of speculators in Sicily than any actual shortage of the fruit; in fact, we understand that the lemon crop is quite normal, but that the wet weather during November and December delayed the pressing; to arrive, prices vary from 10s. 9d. to 12s. 6d. c.i.f., and on the spot prices are from 11s. to 11s. 6d. Several declarations of shipments have been made this week, so that the spot scarcity will not be so apparent. To-day oil to arrive in two or three weeks is quoted at 10s. 6d. per lb. c.i.f.

**LINSEED** can be bought at 57s. 6d. to 60s. per quarter for good clean quality.

**LINSEED OIL** closes firm at 24l. spot for pipes, 24l. 10s. in barrels, and 24l. 5s. for January delivery.

A monthly report states that prices have further declined, although the downward movement has been slow, despite a moderate business to speculators and consumers; on the month, spot has receded about 2l. and forward 25s. per ton. At present, indications point to still lower prices, although oil at to-day's figure is cheap, and, in view of the fact that consumers all over the world have been working on small stocks and that business in those trades using linseed oil is good, it is hardly likely values will recede much further. Reports from the Argentine during the past month have been uniformly good, and it is evident that that country has harvested not only a record crop in quantity, but also one of good quality. Shipments are now commencing, and while the large crop has already been discounted here, such large supplies becoming available will doubtless weaken the position, especially so as the U.S.A.—which country in the last two or three years has been a large importer—this season has sufficient domestic seed to take care of her own requirements. The first official estimate of the acreage sown to linseed in India for the current season was published two weeks ago; it shows about 15 per cent. less than the actual of last year, but from past experience these preliminary estimates generally return a smaller acreage than the actual.

**Lycopodium.**—Although last season's crop was good, the greater part of it is said to have been disposed of; treble-sifted, guaranteed pure, is quoted in cases at 1s. 7½d., and in bags at 1s. 6½d. per lb. c.i.f.

**MENTHOL.**—Spot is unaltered at from 29s. 6d. to 30s. 6d. per lb. according to brand; interest this week has centred in parcels to arrive, and business has been done in Kobayashi-Suzuki for January-March shipment combined with oil at 29s. 6d. per lb., c.i.f.; also February-May shipment at 30s., c.i.f. It is stated on good authority that a large firm of Japanese merchants who ceased handling menthol and oil three or four years ago, have again entered the business, signifying their re-entry into the market by large purchases of crude peppermint oil in Japan, estimated at about 125,000 lb. to 150,000 lb.

Hamburg reports a steadier market there after the decline, spot offering at from 29s. 6d. c.i.f. London.

**MILK-SUGAR** is flat and easier at from 58s. to 58s. 6d. per cwt. for small lots on the spot.

**OPIUM.**—Business continues at a standstill, with an absence of prices from primary sources. The value of good Turkey druggists' on the spot is from 20s. 6d. to 21s. per lb., and soft shipping from 25s. to 26s. 6d. According to private advices it is stated that no shortage is anticipated in Asia Minor sowings, which yield druggists' qualities, but that in Macedonia, which yields soft shipping qualities, the shortage, owing to the war and devastation, is estimated at 40 per cent., so the inference is that druggists' qualities will be cheaper next season, and soft shipping descriptions dearer. A Constantinople correspondent writes on January 18 that the sales of the week

are 4 cases druggists' at 270 ptrs.; one case soft at 295 ptrs., and five cases Malatias at 285 ptrs. The market is firmer on account of pessimistic news from the Interior, reporting rigorous cold weather. We hear from Salonica that the ground sown this year in Macedonia is 45 per cent. less in comparison with last year.

**ORANGE OIL.**—West Indian sweet is quoted on the spot at 9s. per lb., and fair sales have been made up to this figure. Bitter is scarce.

**PEPPERMINT OIL.**—H.G.H. is quoted 14s. 9d. per lb., ex warehouse, London terms, to arrive, and 15s. for prompt delivery; *Todd's* crystal white is 13s. net to arrive, and tin oil 11s. 6d. net, ex warehouse. Several agents quote 11s. 9d., with cable instructions to sell sparingly. Japanese demerolised is firmer, Kobayashi and (or) Suzuki for January-March and January-February shipment selling at 6s. 3d., c.i.f.; a considerable quantity has changed hands; Kobayashi on spot is quoted 7s.

**POTASHES** have advanced twice this week, the current quotation for first Montreal (Government branded) being 40s.; seconds, ditto, 37s. 6d.; American are unobtainable, and the same may be said of *Pearl*.

**QUICKSILVER** closes steady at 7l. 15s. in first-hands, and at 7l. 10s. in second-hands.

**QUININE.**—Pending the important sale of bark to be held at Amsterdam to-morrow (Thursday), the market has been quiet but firm, with buyers of the usual German brands at 9½d. Amsterdam and Java are quoted 9½d. sellers. Several of the German makers have sold limited quantities at 9½d. The belief is still current in interested circles that the negotiations between the Java planters and the European quinine-makers will presently lead to an agreement.

At the auction of the Amsterdam Quinine-works held on January 17, 1,417½ kilos. (50,000 oz.) Ed. II. were offered, of which 141½ kilos. (5,000 oz.) sold at fl. 16.30 per kilo., against fl. 14.44½ per kilo. at the previous auction. The next auction will be held on January 31, when a similar quantity will be offered.

The exports of "quinine, quinine salts, and combinations" from Germany during the eleven months ended November were as follows:

	1910	1911	1912
Kilos. ...	172,500	190,500	192,400
Marks ...	3,968,000	4,618,000	4,968,000

**SELLAC** is firmer, fair TN Orange on the spot offering at 74s. and AC Garnet at 70s.; TN afloat has been sold at 74s., and January-February shipment is quoted 76s. c.i.f.; and AC Garnet for January-February shipment is quoted 71s. c.i.f.; a large business has been done in futures, including March, at 74s. to 74s. 6d. to 73s. 6d., May at 75s. to 75s. 6d. to 75s.

**SPERMACETI.**—American refined is quoted at from 11d. to 11½d. per lb. ex warehouse; market tends firmer, if anything.

**SPICES.**—Zanzibar *Cloves* are quiet at 10½d. spot; to arrive sellers quote January-March at 10½d. and September-November (new crop) at 7½d. c.i.f.; for delivery sellers quote January-March 10½d., March-May 10½d., and June-August 10½d. At auction 101 bags Japanese *Chillies* sold without reserve at 26s., one lot 26s. 6d.; 130 cases good loose *Cassia Lignea* were bought in at 45s. *Pepper* is steady with sellers of fair Singapore at 5½d. spot; White Singapore is quoted sellers at 8½d. for fair, and Muntok at 8½d.; at auction 15 cases Natal *Arrow-root* were bought in at 9d.

**TARTARIC ACID** is steady at 1s. 0½d. to 1s. 0¾d. for foreign and 1s. 1d. for English.

**TONKA BEANS.**—Angostura for June-August delivery are quoted 7s. per lb. c.i.f. to arrive.

**TURPENTINE** is slightly dearer, American closing on Wednesday at 32s. per cwt. on the spot.

A monthly report states that it is difficult to prognosticate the future, the market being so subject to manipulation; but while stocks both here and in the U.S.A. are heavier than at this period a year ago, the demand is increasing, and, although prices may gradually advance, no substantial advance is looked for.

**VANILLA.**—At auction on Friday the large supply of about 960 tins offered, of which about 800 tins sold, at

an average decline of 2s. per lb. for long, and 1s. 6d. to 2s. lower for medium and short lengths; foxy and split declined by about 6d. only.

### Heavy Chemicals.

There is little of alteration to be reported regarding the condition of the heavy-chemical market. The general demand has been somewhat heavier and inquiries more numerous, but as yet there is no great pressure. The tone of the market is firm.

SULPHATE OF AMMONIA has again well maintained its firmer tone, and seems likely to continue to do so. Values are a shade higher, with present nearest figures: Beckton, 25-per-cent. ammonia guaranteed, January-April, 14*l.*; London terms, prompt, 13*l.* 15s.; Leith, 14*l.* 12s. 6d.; Liverpool, 14*l.* 12s. 6d.; and Hull, 14*l.* 8s. 9d. to 14*l.* 10s.

BENZOLS have taken a firmer tone, and are dearer since last quoted. Present naked figures: 90 per cent., 11*d.*, and 50 per cent. 11*d.*; North, 10*1/2**d.* and 10*1/2**d.* respectively.

ALKALI-PRODUCE.—In this branch there is a steady all-round demand both on contract and miscellaneous account, and prices are firm. Bleaching-powder rules 5*l.* 5s. to 5*l.* 15s. per ton for softwood casks, on rails, according to circumstances. Caustic soda, 7*l* to 7*l* per cent., 10*l.* to 10*l.* 10s.; 70 per cent., 9*l.* 5s. to 9*l.* 15s.; and 60 per cent., 8*l.* 5s. to 8*l.* 15s. per ton. Ammonia alkali, 2*l.* 17s. 6d. to 3*l.* 10s. per ton, free on rails, for home trade.

ALUMINA-PRODUCTS rule firm, and the demand is a good average. Crystal-alum basis for quotations rules a shade higher, and the margins are now about as follows: Lump, 5*l.* 15s. to 6*l.* 10s.; and ground, in bags, 6*l.* 5s. to 7*l.* per ton, free on rails Lancashire or Yorkshire, or f.o.b. Hull, Goole, or Liverpool. Sulphate of alumina, purest qualities, practically free of iron, 5*l.* to 5*l.* 10s. per ton for ordinary strength, in casks, with usual allowances for loose slabs, and customary extras for higher concentrations. Alumino-ferric, 52s. 6d. to 57s. 6d. per ton. Aluminous cake, 50s. to 60s. per ton, according to quality, quantity, and destination. Hydrate of alumina, high strength  $Al_2O_3$ , and purest quality, 12*l.* 10s. to 13*l.* 10s. per ton in casks, free on rails. Aluminate of soda, purest quality and high strength  $Al_2O_3$ , 27s. 6d. to 30s. per cwt. Carbonate of alumina, 30s. to 32s. 6d. per cwt.

LEAD-PRODUCTS are lower. Present nearest: Dry white lead, 25*l.*; red lead, 19*l.* 15s.; pig lead, 17*l.* 10s.; and sheets, 22*l.* per ton, Tynes.

### Manchester Chemical-market.

January 21.

The course of the market during the past month would show that the year has opened tamely and that for many products prices are favouring buyers. This is contrary to the ideas which were entertained in certain quarters that there would not be much change for some time. No doubt on export account demand remains good, and also against contracts for home consumption, which continue to be fairly heavy. This is especially the case in the Lancashire cotton districts, where, owing to the present "boom" in manufactured goods, there is some pressure for deliveries. Bleaching-powder may be quoted 5*l.* 2s. 6d. to 5*l.* 7s. 6d. per ton, which is 2s. 6d. to 5s. per ton lower than in the beginning of December. Caustic soda, all strengths, soda-crystals, and saltcake show practically no change. Grey muriate of ammonia, f.o.b. Liverpool, is about 20s. per ton lower, but sal-ammoniac shows no change. In potashes of all kinds prices have been fairly maintained. Yellow prussiate, however, as was anticipated early in December, is 1*d.* per lb. lower in the meantime. Acetate of lime has dropped about 10s. per ton for American, c.i.f. Bicarbonate of soda, bichromates, and chlorates remain unchanged. Alum, lump, ground, and in bags, is 5s. to 7s. 6d. per ton higher, but sulphate of alumina, 14 per cent., is unchanged. White powdered arsenic has had rather a sharp relapse. Reductions in prices occurred about the close of the year, and it may now be quoted 22*l.* 10s. to 23*l.* 10s. per ton for best white powdered, delivered Manchester. Oxalic acid is about 1*d.* per lb. lower, but there is little change in other sorts. Cream of tartar is about 30s. per ton lower. Lead-products show a fairly substantial reduction on the month, due to the rapid drop in the raw metal, and it may be fairly assumed, from various circumstances within our knowledge that it has not yet touched "bottom." The January reduction is from 10s. to 20s. per ton, according to quantity and kind. Sulphate of copper is also another article which has declined in common with the reduction in the raw copper. Some uncertainty prevails as to the future of the metal, and makers are offering sparingly. Sulphur, both rock and flower, shows little change, but recovered is dearer by about 7s. 6d. per ton. Creosote has followed suit to some extent, but solvent and other naphthas show little change. In wood naphthas, miscible has been in fair request, and has advanced to 3s. per gal., but solvent wood

(white colourless) is unchanged. In oils, speaking generally, the position has not varied much, but linseed and olive are much lower. Glycerin is about 2*l.* per ton lower. Starches and turpentine are dearer.

By wire on January 22 we are advised that the Manchester chemical market closed quietly. Sulphate of ammonia is dearer at 14*l.* 7s. 6d. to 14*l.* 8s. 9d. per ton, on rails, Manchester. Sulphur is steady, and copper sulphate again easier, closing at 25*l.* to 25*l.* 5s. per ton for best brands delivered Manchester. Acetic acid (40 per cent.) is firm at 15*l.*

### The Turpentine Market.

In a review of the rosin and turpentine trade during 1912, a leading firm of London merchants state that the greater part of the year was a long reaction from the inflated prices of 1910 and 1911. The rise from 25s. 6d. in April 1909 to 74*s.* 3*d.* in March 1911 was followed by a fall to 27*s.* in November 1912. During December the market was subject to violent oscillations, the extremes being 31*s.* 9*d.* and 27*s.* 7*d.* The average price for 1912 is slightly below that of 1909, but above that of 1908. Lower prices have increased the consumption. In the U.S.A. a cold, wet summer was followed by an exceptionally fine autumn, so that the present crop promises to be at least as large as that of 1911-12, and in France much the same conditions prevailed. Spain and Portugal appear to have had good crops during the past year. Many other countries are stirring themselves to tap their pines for turpentine, either as a new departure or with increased energy. Wood turpentine also is being produced in a more scientific manner in northern Europe, as well as in the U.S.A., but the serious fall in the price of gum turpentine this year may discourage some of the new enterprises. The imports of American wood turpentine have been quite a feature in 1912. The British statistics do not distinguish between the imports of gum and wood turpentine. Those of the United States purport to do so. The French exports show a large falling off; this is due to the relatively high price at which French turpentine has been maintained during 1912. It is known that the consequent accumulation of stock in France is very important.

### The New Drug Show-rooms.

The whole of the drugs formerly shown at the Crutched Friars have now been removed to the New Street section of the Cutler Street warehouse, and to-day (Wednesday) the trade went for the first time to inspect them in their new quarters, which are situated on the fourth floor and reached by an interior lift. The "show" consisted of new goods only, and was small, which was perhaps an advantage, seeing that artificial light had to be used to inspect the goods. The change is not one, however, that commands itself to the trade, as the distance from the Mincing Lane centre is much greater than from Crutched Friars. The room allotted for the display of the heavy drugs is of smaller capacity, and is decidedly inferior for the purpose of inspection to the old one in Crutched Friars, the light being by no means brilliant. This, however, is to be remedied by removing more wood from the roof, and replacing by glazed windows. As regards the rhubarb room, this has the advantage of being next or continuous to the heavy-drug room, and is therefore more conveniently situated than in the old quarters, while the light is quite good. There was a little grumbling among the buyers on Wednesday, but this was inevitable, and it is understood that the Port of London Authority are quite willing to lend an ear to any improvements that may be suggested. The most direct route to Cutler Street from Mincing Lane is through Fen Court, Baltic House, and St. Mary Axe, Cutler Street being a few yards to the right. As this issue closed for press on Wednesday evening, we hope to print a photograph of the new quarters next week.

### The Bark and Quinine Negotiations.

The "Chemiker Zeitung" of January 21 states that as all the cinchona-planters having joined the Syndicate, the erection of a quinine-factory in Java for account of the Dutch-Indian Government has been decided upon; this State factory is to produce 12,000 kilos. of quinine per annum for home consumption. The Bandoeng factory is to produce 60,000 kilos. of quinine per annum, and is to be compensated for the loss of the Government sales by the Planters' Association. The yearly total production of bark allowed to the planters is fixed at the equivalent of 500,000 kilos. quinine sulphate. The minimum unit price is fixed at 5 cents, and the price of quinine at 16*2/3* fl. or less. If the price of quinine advances above 16*2/3* fl. the unit price of bark will rise correspondingly, and the surplus profits will be divided equally between planters and manufacturers. Inquiries made in London to-day show that the agreement has not yet been signed, but that there is every likelihood that it will be.



### Memoranda for Correspondents.

All communications must be accompanied by the names and addresses of the writers, otherwise they cannot be dealt with. Queries by subscribers on dispensing, legal, and miscellaneous subjects connected with the business are replied to in these columns if they are considered to be of general interest.

Letters submitted for publication (if suitable) should be written on one side of the paper only. Their publication in "The Chemist and Druggist" does not imply Editorial agreement with the opinions expressed.

### Drugs for India.

SIR,—Referring to the letter of Messrs. Stafford Allen & Sons, Ltd., in your issue of January 18, we also have received from India an original sealed 1-lb. pot labelled "Ext. Belladon. Virid., P.B." the label bearing the name, signature, and guarantee of a well-known firm of wholesale druggists. This extract was bought in India at less than the figure obtained in the London market for genuine extract. The alkaloidal content we find to be 0.255 per cent., and the extract is a tenacious mass without a vestige of green colour, quite different in character from ext. belladonnæ viride, B.P. We quite agree with Mr. Allen's comment that it is high time something was done.

Yours faithfully,

JAMES WOOLLEY, SONS & CO., LTD.,

GEO. S. WOOLLEY, Director.

Manchester, January 20.

### The Chemists' Ball.

SIR,—While thanking you for the report of the dance on January 15, I feel it is my duty to the committee and to all those present at the dance to express my regret at the reference made to the "Turkey Trot" and "Bunny Hug." I have seen both these dances, and if anything of the sort had been attempted at the Chemists' Ball immediate measures would have been taken by either myself or the M.C. to put a stop to it. The only conclusion I can come to is that your reporter is not aware of the difference between the "Boston," which is to be seen at every fashionable dance, and the above American monstrosities, which are rightly banned at every respectable gathering. If the half dozen couples, who delighted everyone present with their perfect command of the "Boston," caused any discomfort to the company I should naturally have been the first to have heard of it. In justice to them and myself I shall be very glad if you will kindly insert this letter in your next issue.

Yours faithfully,

ALAN FRANCIS, Hon. Secretary.

Graham Street, N., January 17.

### Reiteration of a Mere Name.

SIR,—I have been criticised by "Xrayser" for saying that twenty years ago valuable space was used in childishly reiterating a mere name. He reminds me that Bovril, Carter, and Beecham advertise in this way to-day along railway lines, on station steps, etc. Quite true, but do they rely solely upon this mode of publicity, or do they use much valuable newspaper space for it, as was the policy pursued by many firms twenty years ago? Investigate and you will find that they back up these reiterations of "a mere name" with "reason why" copy in numerous forms—in booklets, cards, letters, newspaper and trade-paper advertisements, etc. They only use the "mere name" along railway lines, on station steps, or in places where the public will not or cannot stop to read anything further. The man who would to-day rely only upon the reiteration of a mere name or phrase for his publicity would soon be advertising his inability to cope with modern business conditions in the bankruptcy court. In writing for the *C. & D.* readers I never think it necessary to dot my i's and cross my t's as carefully as if I were addressing the general public, hence the reason why I may not have made myself as clear in my last article

as I might have done. As for the "Before and After" pictures, I do not as a rule advise these, because we have had a surfeit of them and the public is attracted by new ideas. "Xrayser" accuses me of leaving readers at a loss as to just how to proceed to obtain best results. Patience; even an advertising specialist cannot put the accumulated wisdom of the ages, as far as advertising is concerned, into a couple of columns of space. I am also asked what kind of pictorial advertising I would recommend to attract attention. I refer him to the article in April 1908 number of the *C. & D.* This, however, is not my last word on this interesting subject.

I am astonished that I should be criticised for recommending that advertisement copy should mirror modern journalistic methods. I cannot better this advice. Surely "Xrayser," who is himself such an up-to-date writer, should need no explanation from a mere advertising specialist as to the methods employed by his fellow-craftsmen!

F. A. DEGEN, F.I.S.A.C.

### Insurance Dispensing.

SIR,—What about bandages, splints, etc.? How is it possible for chemists to supply them when so many cases have to be dressed and bandaged by the doctor? What about splints? Must the doctor send to the chemist for the splints before he can bandage a broken arm? If not, what is the good of stocking them? I am afraid those chemists who have tumbled over each other to get their bandages, etc., in stock will live to regret it, and curse everybody but themselves for running into useless expense.

Yours faithfully,

G. A. B. (213/47.)

SIR,—The contract I signed stated that bottles must be returned in a clean condition, consequently it rests with the patient to wash and cleanse the bottles, and oily bottles would not be admissible. As chemists we could not be satisfied with such cleansing, but would rewash them *secundum artem*. Could you kindly tell me how to price—

Vin. ipecac. 3ij. [2d.]  
Liq. ammon. acet. fort. 3iv. [1d.]  
Tr. ferr. perch. 3ij. [2d.]  
Tr. gent. co. 3vj. [2d.]  
Succ. tarax. 3vj. [2d.]

I presume a script ordering any one of the three latter must be written on a pink form. What were our Committee doing to allow infusions, such as buchu, cinchona, and senegæ, and aquæ, such as cinnam., rosæ, and sambuci, to pass at such prices? The chemist in better-class neighbourhoods will be frequently called upon to dispense such scripts at a loss.

G. F. E. (205/1.)

Mr. W. Johnston (Secretary of the Chemists' Defence Association), writing in regard to the arrangement come to between chemists and doctors in Doncaster, whereby the local doctors will do all the dispensing after 8 P.M. (Thursday 1 P.M.) and on Sundays and Bank holidays, for 6d. per head, thus reducing the chemists' allowance to 1s. 6d., says :

I consider the step very dangerous. I am firmly of opinion that when the chemists accept the dispensing under the Insurance Act they ought to take it with all its responsibilities, including whatever inconveniences may be attached thereto. There is no doubt that the British Medical Association will have a try to get the Act amended at the earliest opportunity, and a good many members of that body would gladly upset the arrangement by which the dispensing is retained for pharmacists. If they can point members of Parliament to many instances like the above, where pharmacists are shirking the disagreeable duties connected with Insurance dispensing, they will use the fact as a lever for their own benefit by saying that chemists are willing to take the best of the dispensing and to leave the dregs to the doctors, and that the doctors ought to have the opportunity of taking the whole if they choose.

There is cogency in Mr. Johnston's remarks, but the fact should not be overlooked that the Chancellor of the Exchequer informed doctors' representatives who put to him the case of quick relief outside business hours that the provision of the remedies by the doctors in such circumstances would not be interfered with. We agree with Mr. Johnston that it is best for chemists to accept

prescriptions at all times, and to secure a late fee for late work. In the long run there will be little night dispensing to do.

SIR,—Two incidents happened on January 19, one of which will amuse the "Firebrand of Hereford" and others like unto him. At 10.45 A.M. I was disturbed just as I was going to service by a distinguished member of the civil service, the "head" of his department. He apologised for troubling me, was served, paid, and said he was obliged. On entering the place where I go on Sundays, one of the sidesmen in the very building calmly gave me an Insurance script for a mixture and ointment with the following charming remark: "Oh, I was too busy to come down last night; could you let me have this to-morrow morning at eight as I go to work?" This was too much for me, and I did not answer him after the style of those good people who answer the conundrums in the religious papers as to what should be done under such and such circumstances. Instead of saying, "Oh, yes, certainly, only too happy to oblige. Let 'em all come," I said, "Look here, the Committee won't put up with this sort of thing, you know. You will have to bring your papers along when you get them, or they will soon be on your track." Whereupon he stood aghast, the vague and unknown Committee positively frightening him. As the preface to "Secret Remedies" has it: *Omne ignotum pro magnifico.* The doctor's door is distant from mine certainly not more than 150 yards, and probably less. To paraphrase Dr. Johnson: "The Insurance Act is not intended to serve chemists as the potentiality of wealth beyond the dreams of avarice, but to supply the Patient Paying Public with Pure Products at Philanthropic Prices."

Yours,

ANOTHER SINGLE-HANDED CHEMIST. (202/48.)

SIR,—After a few days' experience of Insurance dispensing, the fact that strikes me most forcibly is the advantage in favour of charging by dose instead of by contents. Under the present scheme the maximum of trouble is entailed in pricing out each item in a prescription, and an enormous expense will fall upon the Committee in checking the accounts item by item. Accountancy charges under the present system are very likely to cost as much as the dispensing. If the charge had been fixed at  $\frac{1}{2}d.$  per dose, *plus* a twopenny dispensing fee [For how much?—EDITOR], with extras for expensive drugs at schedule rate, the price would work out much the same as at present, with less trouble to ourselves and economy to the Committee. It would solve the problem of repeats, stock mixtures, and non-schedule drugs, and do away with the necessity for two prescription-books, an unnecessary trouble to the doctor. Only in the case of expensive mixtures would detailed pricing be necessary. With regard to dispensing by doctors in rural areas, am I correct in reading the Act that, while doctors personally may dispense, no provision is made for their employing an unqualified person to do the dispensing for them; except, of course, a Licentiate of the Apothecaries' Society, who may employ an apothecary's assistant; and that the exception for three-year dispensers only applies if they are working for a pharmacist? I note that already complaint is made of patients having to pass the chemist's door to reach the doctor, and the doctor claiming the right to supply them with medicine if they live more than a mile away and to claim 9s. per head for such persons. In market towns, where our customers are drawn from an area of miles round, this would mean that the doctor takes the cream and we are to content ourselves with the skimmed milk.

Yours truly,

Cambridge.

C. L. SMOUT.

[Other letters on this subject received on Wednesday will be dealt with next week.—EDITOR, C. & D.]

#### Dispensing Solutions.

SIR,—The Insurance dispensing has started in real earnest, and I have been run off my feet with the extra work. Night duty is the trouble, but I know of one instance where a man paid the doctor his ordinary fee in the night for a bottle of medicine sooner than come and knock me up and fetch me down to the shop (I do not

live on premises). On the other hand, a man came to me for a bottle of medicine because he could not get at the doctor, he being so busy with insured patients. This is "cutting both ways," as the saying is. I am having a little difficulty with dispensing solutions, not being able to get the whole of the ingredient to dissolve in the water. An ammonium-bromide solution 30 grs. in 1 drachm (fl.) which I have made does not form a perfect solution. There will be quite 1 oz. undissolved. How do you account for it? I enclose a list of dispensing solutions which I have worked on, with a note at top showing you how I have prepared a pint (or  $\frac{1}{2}$  pint) of each. Can you help me? Other solutions also have not been perfect. Can it be the water? It is rather hard.

Yours truly,  
W. G. (123/35.)

We append our correspondent's table (apparently from a price-list), and have added a column made up of the figures given in "The Art of Dispensing," but those marked S are the solubilities in cold water given in Squire's "Companion"; from these it will be seen that the manufacturer's solution of ammonium bromide is not possible with water alone, nor is quinine. The pint calculations are wrong, 15 gr. in 3j. is equal to 5 oz. 212 $\frac{1}{2}$  gr. in a pint  
 $(15 \times 8 \times 20 \div 437.5 = 5 \text{ oz. } 212\frac{1}{2} \text{ gr.})$ :

15 gr. in 3j.	= 5 oz. 200 gr. to Oj.
30 gr. in 3j.	= 5 oz. 200 gr. to Oss.
Sol. acid. boric	... 2 gr. in 1 dr. 1 in 25 (S)
," salicylic	... 5 " 1 in 550 (S)
," aluminis	... 2 " 1 in 16
," ammon. carb.	... 15 " 1 in 4 (S)
," bromid.	... 30 " 1 in 4 (S)
," chlorid.	... 15 " 1 in 3 (S)
," chloral hydras	... 60 " 1 in 1
," ferri ammon. cit.	... 60 " 10 in 5 (S)
," quinæ cit.	... 60 " 1 in 2
," magnes. sulphas	... 30 " 1 in 2
," potass. acet.	... 60 " 1 in 2
," bicarb.	... 15 " 1 in 4
," bromid.	... 30 " 1 in 4
," chlorat.	... 3 " 1 in 24
," citrate	... 30 " 10 in 6 (S)
," iodid.	... 60 " 1 in 2
," nitrat.	... 12 " 1 in 8
," quinæ sulphas	... 4 " 1 in 800 (S)
," sodii bicarb.	... 5 " 1 in 4
," salicylas	... 30 " 1 in 1 (S)

#### Cleaning Physic-bottles.

SIR,—I should advise your correspondent to try a strong solution of pearlash for cleaning out oil-bottles. If that, however, does not suffice use a little oil of vitriol; this is preferable to nitric acid, and also cheaper at the same time. What oil or deposit is left in the bottle is carbonised, and detached by rinsing with water. Most chemists know the *modus operandi* with respect to the action of acids on metals.

Yours truly,  
J. W. WRIGHT.

#### Subscribers' Symposium.

For questions, answers, incidents, and interchange of opinions among "C. & D." readers.

#### Appreciations.

Thanks for continued help, money saved and earned through C. & D. and its library.—W. J. S. (193/71).

I have to congratulate you on the excellence of your well-known paper, which seems to increase as the years go on.—J. F. (106/34).

I have read the C. & D. since 1881, and have looked forward to its weekly arrival as eagerly as a boy for the next number of a "blood-and-thunder story." To my mind the C. & D. gives the kernel of what is essential to the trade, and no member of the trade (in these days especially) can afford to do without it.—*Edinburgh Pharmacist* (131/10).

#### A Warning.

A Subscriber (197/28) in East Dulwich warns the trade in regard to a man who has been selling a plate-powder at 9s. per gross on condition that female canvassers will call upon the houses in the neighbourhood to push the sale by those who stock a gross. The man takes payment when he delivers the plate-powder, but our subscriber's experience is that the female-canvasser part of the contract is not fulfilled.

**Bonus to Assistants: How Reckoned?**

Now that stocktaking is over, and we know what goods are lying on our shelves (in some cases in excessive quantities) which want special attention in order to make them move, I should be glad if any of your readers could give some information how the system of giving a bonus on sales of special goods—such as own proprietaries, etc.—is worked. What is a fair rate of bonus, and how is a check kept that bonus is paid only on certain selected goods? Also, what system is adopted so as to apply fairly to dispensers as well as front-counter men. I believe such a system is in use by a great many firms, and gives assistants a greater interest in pushing goods, which means an addition to their salary at the end of the month, and incidentally more profit to the pharmacist.—*Manager* (203/36).

**Dispensing Notes.**

This section is for the discussion and solution of dispensing problems and prescriptions submitted by "C. & D." readers. We are always pleased to receive the opinions of readers for publication. "The Art of Dispensing" ("C. & D." Office, 6s.) is the standard book of reference on this subject.

**Black Pill-coating.**

*Midlander* (194/63) asks how some makers of pil. ferri redact. and pil. ferri produce the pills quite black. [It is not necessary to add colouring in these cases, as before the gelatin-coating is applied the surface of the pill becomes almost black through drying.]

**Measuring Thick Fluids.**

*Anthel* (193/71) wants to know how he may measure ext. filicis liq. The samples he has received always adhere to the measure, which retains as much as will pour out. [If a drachm of ext. filicis liq. is wanted, pour into the measure 2 drachms of the water, or similar vehicle prescribed, then pour the liquid extract upon this. When pouring out see that some of the water comes before the liquid extract, and little of the latter will adhere to the glass.]

**Solutions for Insurance Dispensing.**

In addition to your list of solutions, may I suggest one of glycerin (1 in 2)? It pours easily, and saves time and trouble. Will you kindly say if, in your opinion, aq. dest. should always be used in a scrip if aqua is ordered. Aq. dest. can be charged  $\frac{1}{2}d.$  for 6 oz.—*W. J.* (191/28).

[There is no ambiguity as to what is meant when 'aqua' is ordered in a prescription, distilled water alone being recognised by the British Pharmacopœia, which is authoritative on such matters.]—*The Art of Dispensing*, p. 50.]

**Legal Queries.**

Before writing about your difficulty consult "The Chemists' and Druggists' Diary," 1913, pp. 211-242 and pp. 457-459, where most legal difficulties are anticipated.

Questions in regard to National Insurance Act dispensing are answered on p. 114.

*C. W. C.* (127/36) and *Vedo London* (126/20).—See the Insurance computation editorial in this issue.

*H. L.* (203/24).—"CORN-CURE" is in itself a title which involves liability to medicine stamp-duty. A penny box of "Corn-cure" should be stamped with a three-halfpenny stamp.

*Taken in* (202/53).—The police have no right to interfere between you and a customer who declares that he paid for the article, and you assert to the contrary. It is a civil matter, not a criminal, and you correctly surmise that it is not worth your while taking action. You will profit through it by improving your system of receipts for cash.

*Melrose* (198/59).—**LIMITED COMPANIES.**—(1) The formation of a company is one thing, and the business which it is proposed to take over is another. The value of the business is, of course, a factor in determining the amount of the capital that the limited company will have, but it is customary to put the capital somewhat higher than the amount of the stock, fixtures, etc., of the business. See the *Diary* article on the subject. (2) Private companies are not required to supply an audited balance-sheet with the annual summary required to be submitted to the Registrar of companies. The forms for this annual summary are supplied by company stationers. (3) A company pays no annual fees, except the stamp-fees for registration of documents.

*Limerick* (185/25).—**ASSISTANT'S HOLIDAYS AND NOTICE.**—A is engaged by a limited company as manager, and has been given notice of discharge by C on behalf of the company. A's annual holiday was due prior to the giving of the notice, which was, in consequence, worded as follows: "You will be relieved from your duties at the end of the fortnight from the date of this notice, and shall receive a fortnight's salary in lieu of your annual holiday." A declines to acknowledge the authority of the notice signed by C, and contends that it is insufficient on the ground that the holiday must not be taken into consideration in computing the customary month's notice. [Assuming that C was duly authorised by the company to discharge A, and that A is not, by special agreement or otherwise, entitled to more than one month's notice of discharge, the notice given is, in our opinion, sufficient. A will, in fact, receive the equivalent of a month's notice, since he will be employed as usual for the first fortnight, and will be paid his salary in respect of the second fortnight. It is a condition in the drug and other trades to give an annual holiday with pay when there is continuance of service. Without such continuance the right to the holiday is questionable, nor is it established that the employé is entitled to salary in lieu of holidays.]

**Miscellaneous Inquiries.**

We do not as a rule repeat information which has been given in this section during the past twelve months, as it occupies space which can be more profitably utilised for other information. In such cases the numbers are mentioned, and if querists cannot refer to these they may obtain the numbers from the "C. & D." Office at the published prices, usually 6d.

We do not undertake to analyse and report upon proprietary articles, and when samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how.

*Velox* (140/32).—**WORMS IN HORSES.**—For the large round worms the ball given in "Veterinary Counter-practice" is as good as anything. Its composition is as follows:

Santonini	...	...	...	...	gr. xx.
Pulv. vitrei	...	...	...	...	3ij.
Antimon. tart.	...	...	...	...	3j.
Aloes barb.	...	...	...	...	3ij.
Ferri sulph. exsic.	...	...	...	...	3j.
Alum. exsic.	...	...	...	...	3j.
Excipient.	...	...	...	...	ut fiat bolus

Kamala may take the place of santonin if the expense is objected to—say, half a drachm of kamala per ball. One to be given twice a week.

*Grosvenor* (166/41).—**MINOR EXAMINATION BOTANY.**—You are quite correct in considering that the Minor syllabus does not call for detailed knowledge of the life history of algae and fungi. The yeasts belonging to the latter class are the subject of questions owing to the fact that they are concerned in alcoholic fermentation. Their life history is very simple. Each plant consists of a single nucleated cell, which reproduces itself by budding. The outgrowth is cut off by constriction of the cell-walls and forms a new plant. The cells frequently hold together in chains. When food supplies are insufficient the contents of a cell divide up into four, each portion surrounding itself with a thick cell-wall and forms a spore. These spores are highly resistant to unfavourable conditions, and when brought in contact with suitable media they give rise to a new yeast plant.

*J. B.* (191/8).—(1) **BOOKS ON THE MANUFACTURE OF CALCIUM CARBIDE.**—The details of the manufacture and analysis of calcium carbide are given in books dealing with acetylene. The fullest account is given in Lewes's "Acetylene: A Handbook for the Student and Manufacturer" (Constable, 31s. 6d.); in this there are chapters on (a) the electric furnace and its application to the manufacture of calcium carbide; (b) the manufacture, properties, and impurities of calcium carbide; (c) analysis of calcium carbide and materials of manufacture. Another work which deals with the physics and chemistry of the reaction between calcium carbide and water, and with the valuation and analysis of calcium carbide, is Leeds and Butterfield's "Acetylene: The Principles of its Generation and Use" (C. Griffin & Co., 5s.). (2) **ANALYSIS OF FERRO-SILICON.**—We are not acquainted with a modern work in English which deals with the manufacture and analysis of ferro-silicon. There is, however, an excellent paper by Watson Gray dealing with analytical methods in the "Proceedings of the Iron and Steel Institute," 1901, which will give you sufficient details on that branch of the subject.

**A. G. S. (183/49).**—NICOTINE is not employed as a weed-killer. The processes of destroying weeds were explained in *The Chemists' and Druggists' Diary, 1910*.

**J. W. K. (177/40).**—WORM-EATEN FURNITURE.—See *C. & D.*, August 3, 1912, index folio 240, and August 17, index folio 319. After the furniture has been treated the worms are killed, and the trouble does not spread.

**Eye Troubles (188/7).**—**DACRO-CYSTITIS.**—You are evidently suffering from chronic dacro-cystitis (inflammation of the lachrymal sac). You should press out the discharge twice a day by means of the finger applied to the root of the nose, and bathe the angle of the eye with *lotio hydr. perchlor.* (1 in 5,000). If this does not succeed in a month or two the only alternative is to have the sac washed out regularly by means of an *Anel's* syringe. To have this done it will be necessary to consult an ophthalmic surgeon.

**F. J. H. (185/1).**—**CAPILLARY AND VENOUS BLEEDING** is best stopped by pressure. An antiseptic dressing with a pad of cotton-wool and a bandage properly applied are usually sufficient. Adrenalin will stop capillary oozing, but has little effect on venous: the same applies to the other styptics mentioned.

**S. E. A. (194/59).**—THE EYE-AFFECTION to which you refer is evidently a form of conjunctivitis. As a zinc-sulphate lotion has not improved the condition, it would be advisable to try one of *hydr. perchlor.* (1 in 5,000).

**Inquirer (128/21).**—**VETERINARY TREATMENT.**—We do not think that you can do better than supply your farmer friend with a copy of "Veterinary Counter Practice." It will give him all the advice he wants, and leave the dispensing of the prescriptions to you. Many stock-keepers at home and abroad use it.

**G. G. (Algiers) (180/59).**—**PRESERVATION OF RUBBER GOODS.**—In a report on the preservation of rubber which was published in the *C. & D.*, March 21, 1908, p. 454, it was stated that for undeteriorated rubber a 3-per-cent. solution of phenol or 3-per-cent. solution of aniline are the best liquids for preserving rubber. For deteriorated rubber a 1-per-cent. solution of potassium pentasulphide possesses the best regenerative power. When the rubber goods are placed in the solutions care must be taken that they are not pressed out of shape, tubing should be coiled, and articles such as enema syringes should be suspended.

**C. A. B. (Trinidad) (35/24).**—**BOOKS ON ELEMENTARY CHEMISTRY.**—Weston's "Elementary Experimental Chemistry" (Longmans, 2s.) and Morgan and Lyman's "Chemistry: An Elementary Text-book" (Macmillan, 5s. 6d.) are recently published books of the kind required.

**J. S. S. (192/23).**—**CEMENT.**—We do not know the composition of the cement to which you refer, but believe it is on the lines of sorel cement, which is formed by mixing caustic magnesia with solution of magnesium chloride of sp. gr. 1.162 to 1.263. In a short time a white compact mass of basic chloride is formed.

**Benzoin (176/15).**—**FISH-BAITING.**—The varieties of flavourings employed in fish-bait as an attraction for the fish are as numerous, Izaak Walton remarks, as the remedies for toothache. The list includes the following: Cheese, asafoetida, oil of rhodium, oil of cumin, musk, Peru balsam, civet, oil of anise, animal oil, and nitrobenzol. A pharmaceutical angler gave some practical hints on the subject in *THE CHEMIST AND DRUGGIST*, June 5, 1909, p. 892, but his remarks are too long to repeat here.

**M. P. S. (177/12).**—**SELLING A BUSINESS.**—The principles upon which the value of a business is arrived at are the amount of stock, kind of fixtures, and goodwill. The stock carried should not be large in proportion to the turnover, and it must be modern and not include any old-fashioned or deteriorated articles. Goodwill depends upon the position of the business, the terms and length of the lease, class of trade, and modernity of the fittings. Goodwill was formerly reckoned at a year's profits, but less than that is the rule nowadays. The stock and fixtures valued by a professional valuer are generally taken as the basis of negotiations. You should read articles by "Jay Mack" in the *C. & D.*, January 25, 1908, p. 151, and March 28, 1908, p. 503, for further insight into the methods.

**Silent (Bombay) (182/11).**—**WAXED PAPER.**—On a small scale waxed paper is made by placing a number of sheets of unsized or only slightly sized paper on an iron "hot-plate." Some scraped wax is placed on the top sheet and melted by means of a flat-iron, which is also employed for spreading the wax and smoothing the paper. For larger

quantities hot rolling-presses are employed in conjunction with a trough of melted wax. Paraffin wax is generally employed now.

**P. O. E. (176/20).**—**STARCH-GLAZING BLOCKS.**—These are often merely paraffin-wax perfumed with citronelle (1 oz. of oil to 10 lb. white paraffin-wax), but the following is a recipe that is largely employed:

Paraffin-wax	...	...	...	14 parts
Naphthalene	...	...	...	7 parts
Sodium chloride	...	...	...	4 parts

Melt together and run into a shallow tray. This variety is generally cut up into lozenge-like pieces, one or two being added to a pint of starch.

**W. K. L. (73/20).**—**ESSENCE OF PEPSIN.**—The following formula contains brandy as desired, the addition of egg would render the preparation weaker in digestive power:

Scale pepsin (1 : 3000)	...	...	gr. cxxvii.
Glycerin	...	...	3iijss.
Cinnamon oil,			
Pimento oil	...	...	aa. m.j.
Clove oil	...	...	mij.
Hydrochloric acid	...	...	mxx.
Purified talc	...	...	3j.
Brandy	...	...	3j.
Sherry	...	...	3iij.
Distilled water ad	...	...	3xv.j.

Mix the wine with the acid and 6 oz. of water; add to it the pepsin, and shake until dissolved; the oils are added to the brandy and triturated with the talc, the pepsin solution gradually added and filtered bright. The glycerin is added finally.

**H. W. A. (37/58).**—**BOOKS DEALING WITH THE MANUFACTURE OF PAPER.**—The following are the chief books on this subject: Sindall's "Manufacture of Paper" (Constable, 6s.); Cross and Bevan's "Text-book of Paper-making" (Spon, 12s. 6d.); Beadle's "Chapters on Paper-making" (Crosby Lockwood, 5 vols., 5s. each); Clapperton's "Practical Paper-making" (same publisher, 5s.); Watt's "Art of Paper-making" (same publisher, 7s. 6d.).

**C. F. S. (Des Moines) (167/13).**—We cannot undertake to compile the lists of books you desire. *The Chemists' and Druggists' Diary, 1906*, contained a bibliography, and included publications on perfumery, soap manufacture, etc., but it is now out of print.

**Caledonia (185/5).**—**BUTTERSCOTCH.**—The following recipe has been given before in these columns; it yields a good product:

Sugar	...	...	...	...	4 lb.
Water	...	...	...	...	15 oz.
Cream of tartar	...	...	...	...	½ dr.
Butter	...	...	...	...	2 oz.

Put the water, sugar, and cream of tartar into a pan and stir till boiling; do not stir after it begins to boil. Add the butter after removing from the fire, but do not stir in.

**W. T. C. R. (185/44).**—**COLOURING ELECTRIC-LIGHT GLOBES.**—See *C. & D.*, February 10, 1912, index folio 241.

## Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," Jan. 15, 1863.

### History of Benzole and Nitro-benzole.

18 Rue Dauphine, Paris.

SIR,—According to your usual practice, you will no doubt allow me to offer a few words of refutation to an article, nearly concerning my interest, which I find in the columns of your issue of the 15th December. People finding that my nitro-benzole was so beautiful, there immediately arose a doubt as to its being a genuine production. It is thoroughly genuine. It is no wonder, then, that being the first to manufacture it, I should also be the first to bring it to its present perfection; and if any hesitation should still exist, I shall feel but too happy in sending you a sample. [The writer proceeds to speak of the work of Hofmann, Faraday, and others on the subject.] Allow me, however, in conclusion of this letter, to render a just tribute to Mr. Hofmann in this question of benzole, nitro-benzole, aniline, and its various magnificent colours. In this respect he has done more than any other person alive, either by his own agency or by his advice, ever since 1848 until the present day, and with incomparable reserve and modesty. All rights of priority of invention, both mine and those of others, ought to yield before him.—I am, etc.,

C. COLLAS, Chemist.